

```

305          310          315          320
Phe Asp Gly Ser Thr Gly Leu Ala Ser Val Glu Ala Tyr Ser Tyr Lys
          325          330          335
Thr Asn Glu Trp Phe Phe Val Ala Pro Met Asn Thr Arg Arg Ser Ser
          340          345          350
Val Gly Val Gly Val Val Glu Gly Lys Leu Tyr Ala Val Gly Gly Tyr
          355          360          365
Asp Gly Ala Ser Arg Gln Cys Leu Ser Thr Val Glu Gln Tyr Asn Pro
          370          375          380
Ala Thr Asn Glu Trp Ile Tyr Val Ala Asp Met Ser Thr Arg Arg Ser
          385          390          395          400
Gly Ala Gly Val Gly Val Leu Ser Gly Gln Leu Tyr Ala Thr Gly Gly
          405          410          415
His Asp Gly Pro Leu Val Arg Lys Ser Val Glu Val Tyr Asp Pro Gly
          420          425          430
Thr Asn Thr Trp Lys Gln Val Ala Asp Met Asn Met Cys Arg Arg Asn
          435          440          445
Ala Gly Val Cys Ala Val Asn Gly Leu Leu Tyr Val Val Gly Gly Asp
          450          455          460
Asp Gly Ser Cys Asn Leu Ala Ser Val Glu Tyr Tyr Asn Pro Val Thr
          465          470          475          480
Asp Lys Trp Thr Leu Leu Pro Thr Asn Met Ser Thr Gly Arg Ser Tyr
          485          490          495
Ala Gly Val Ala Val Ile His Lys Ser Leu
          500          505

```

<210> 5709

<211> 1805

<212> DNA

<213> Homo sapiens

<400> 5709

```

aatctcacc ccttggtgga catggaggag ctggagatgt cagggaacca ctccctgag
60
atcaggcctg gctccttcca tggcctgagc tcctcaaga agctctgggt catgaactca
120
caggtcagcc tgattgagcg gaatgctttt gacgggctgg ctcaacttgt ggaactcaac
180
ttggcccaac ataacctctc ttctttgccc catgacctct ttaccccgct gaggtacctg
240
gtggagtgtc atctacacca caacccttgg aactgtgatt gtgacattct gtggtagacc
300
tggtgtcttc gagagtatat acccaaccaat tccacctgct gtggccgctg tcatgtcccc
360
atgcacatgc gaggccgcta cctcgtggag gtggaccagg cctccttcca gtgctctgcc
420
ccttcatca tggacgcacc togagacctc aacatttctg agggtcggat gccagaactt
480
aagtgtcgga ctccccctat gtctctcgtg aagtgggtgc tgcccaatgg gacagtgtcc
540
agccagcctc cccgccaccc aaggatctct gtctcaccg acggcacctt gaacttttcc
600
cacgtgctgc ttccagacac tgggggtgac acatgatcgt tgaccaatgt tgcaggcaac
660

```

tccaacgcct cggcctacct caatgtgagc acggctgagc ttaacacct caactacagc
 720
 ttcttcacca cagtaacagt ggagaccacg gagatctcgc ctgaggacac aacgcgaaag
 780
 tacaagcctg ttcttaccac gtccactggg taccagccgg catataccac ctctaccacg
 840
 gtgctctatc agactaccgg tgtgcccaag cagggtggcag taccgcgcag agacaccact
 900
 gacaagatgc agaccagcct ggaatgaagt atgaagacca ccaagatcat cattggctgc
 960
 tttgtggcag tgactctgct agctgccgcc atgttgattg tcttctataa acttcgtaag
 1020
 cggcaccagc agcggagtac agtcacagcc gcccggactg ttgagataat ccagggtggc
 1080
 gaagacatcc cagcagcaac atccgcagca gcaacagcag ctccgtccgg tgtatcagggt
 1140
 gagggggcag tagtgctgcc cacaattcat gaccatatta actacaacac ctacaacca
 1200
 gcacatgggg cccactggac agaaaacagc ctgggggaact ctctgcaccc cacagtcacc
 1260
 actatctctg aaccttatat aattcagacc cataccaagg acaagggtaca ggaaactcaa
 1320
 atatgactcc cctcccccaa aaaaacttat aaatgcaat agaatgcaca caaagacagc
 1380
 aacttttcta cagagtgggg agagactttt tctgttatat gcttatatat taagtctatg
 1440
 ggctgggtta aaaaaacaga ttatattaaa atttaaagac aaaaagtcaa acaaaaaata
 1500
 ttttctaact tgtaagttct atttaaaggg ggtggggggg aatcttgagg acgttgtggg
 1560
 gtacaagcca caagttaact tgctatgctg ccagaaggga tttctgggat aaggttgaaa
 1620
 ttgctgagat aaaataaact aaacaacaa acatccttaa agaggtaggg tggggctgc
 1680
 tgagggggca agagggatag actgaatctg tcatttttta gaagatgctt cataggacac
 1740
 aggactatcc atttctacag acatctttct taagccgaga gctgtctttg cagaattatc
 1800
 ttattt
 1805

<210> 5710

<211> 441

<212> PRT

<213> Homo sapiens

<400> 5710

Asn Leu Thr Pro Leu Val Asp Met Glu Glu Leu Glu Met Ser Gly Asn
 1 5 10 15
 His Phe Pro Glu Ile Arg Pro Gly Ser Phe His Gly Leu Ser Ser Leu
 20 25 30
 Lys Lys Leu Trp Val Met Asn Ser Gln Val Ser Leu Ile Glu Arg Asn
 35 40 45
 Ala Phe Asp Gly Leu Ala Ser Leu Val Glu Leu Asn Leu Ala His Asn

50	55	60
Asn Leu Ser Ser Leu Pro His Asp Leu Phe Thr	Pro Leu Arg Tyr Leu	
65	70	75
Val Glu Leu His Leu His His Asn Pro Trp	Asn Cys Asp Cys Asp Ile	80
	85	90
Leu Trp Leu Ala Trp Trp Leu Arg Glu Tyr Ile	Pro Thr Asn Ser Thr	95
	100	105
Cys Cys Gly Arg Cys His Ala Pro Met His Met	Arg Gly Arg Tyr Leu	110
	115	120
Val Glu Val Asp Gln Ala Ser Phe Gln Cys Ser	Ala Pro Phe Ile Met	125
	130	135
Asp Ala Pro Arg Asp Leu Asn Ile Ser Glu Gly	Arg Met Ala Glu Leu	140
	145	150
Lys Cys Arg Thr Pro Pro Met Ser Ser Val Lys	Trp Leu Leu Pro Asn	155
	165	170
Gly Thr Val Leu Ser His Ala Ser Arg His Pro	Arg Ile Ser Val Leu	175
	180	185
Asn Asp Gly Thr Leu Asn Phe Ser His Val Leu	Leu Ser Asp Thr Gly	190
	195	200
Val Tyr Thr Cys Met Val Thr Asn Val Ala Gly	Asn Ser Asn Ala Ser	205
	210	215
Ala Tyr Leu Asn Val Ser Thr Ala Glu Leu Asn	Thr Ser Asn Tyr Ser	220
	225	230
Phe Phe Thr Thr Val Thr Val Glu Thr Thr Glu	Ile Ser Pro Glu Asp	235
	245	250
Thr Thr Arg Lys Tyr Lys Pro Val Pro Thr Thr	Ser Thr Gly Tyr Gln	255
	260	265
Pro Ala Tyr Thr Thr Ser Thr Thr Val Leu Ile	Gln Thr Thr Arg Val	270
	275	280
Pro Lys Gln Val Ala Val Pro Ala Thr Asp Thr	Thr Asp Lys Met Gln	285
	290	295
Thr Ser Leu Asp Glu Val Met Lys Thr Thr Lys	Ile Ile Ile Gly Cys	300
	305	310
Phe Val Ala Val Thr Leu Leu Ala Ala Ala Met	Leu Ile Val Phe Tyr	315
	325	330
Lys Leu Arg Lys Arg His Gln Gln Arg Ser Thr	Val Thr Ala Ala Arg	335
	340	345
Thr Val Glu Ile Ile Gln Val Asp Glu Asp Ile	Pro Ala Ala Thr Ser	350
	355	360
Ala Ala Ala Thr Ala Ala Pro Ser Gly Val Ser	Gly Glu Gly Ala Val	365
	370	375
Val Leu Pro Thr Ile His Asp His Ile Asn Tyr	Asn Thr Tyr Lys Pro	380
	385	390
Ala His Gly Ala His Trp Thr Glu Asn Ser Leu	Gly Asn Ser Leu His	395
	405	410
Pro Thr Val Thr Thr Ile Ser Glu Pro Tyr Ile	Ile Gln Thr His Thr	415
	420	425
Lys Asp Lys Val Gln Glu Thr Gln Ile		430
	435	440

<210> 5711

<211> 1142

<212> DNA

<213> Homo sapiens

<400> 5711
 tgggtggggg ggagtatgaa tgtggctttc agagttggat gttataaaac atagtcattt
 60
 ggaagttggg aactttttat ttttgttata ttgtttttaa tacaggatgt ttgccacacg
 120
 agtcactega gagaatctct gagtcctggc gagggctttc tgaggcttcg tgtattagca
 180
 gctgttgtct tccaactcag cggcagggtt gcctttcccc acggacactc tggacctgtg
 240
 agctcctcaa gcttcctctg ctattgagca gataggaagc cgtgtcaaat atgtggcacc
 300
 ttgaggaat cctagtgtgaa tgacagacaa cttgcctttg atgattttca agagagttgt
 360
 gctatgatgt ggcaaaagta tgcaggaagc aggcggtcaa tgcctctggg agcaaggatc
 420
 cttttccacg gtgtgttcta tgccgggggc tttgccattg tgtattacct cattcaaaa
 480
 ttctatcca gggctttata ttacaagtgt gcagtggagc agctgcagag ccatcccgag
 540
 gcacaggaag ctctggggccc tcctctcaac atccattatc tcaagctcat cgacagggaa
 600
 aacttcgttg acattgttga tgccaagtgt aagattcctg tctctggatc caaatcagag
 660
 ggcccttctc acgtccactc atccagaggt ggccctttc agaggtggca ccttgacgag
 720
 gtctttttag agctcaagga tggtcagcag attcctgtgt tcaagctcag tggggaaaa
 780
 ggtgatgaag tgaaaaagga gtagagacga cccagaagac ccagcttgct tctagtccat
 840
 ccttcctca tctctaccat atggccactg ggggtgtggc ccatctcagt gacagacact
 900
 cctgcaaccc agttttccag ccaccagtgg gatgatggta tgtgccagca catggtaatt
 960
 ttgggtgtaat tctaacttgg gcacaacaaa tgctatttgt catttttaaa ctgaatccga
 1020
 aagaaactcc tattataaat ttaagataat gtaatgtatt tgaaagtgtc ttgtataaaa
 1080
 aagcacatga taaaaggaat cagaattaat aaaatgtttg ttgatcttta aaaaaaaaa
 1140
 1142

<210> 5712
 <211> 145
 <212> PRT
 <213> Homo sapiens

<400> 5712
 Met Trp Gln Lys Tyr Ala Gly Ser Arg Arg Ser Met Pro Leu Gly Ala
 1 5 10 15
 Arg Ile Leu Phe His Gly Val Phe Tyr Ala Gly Gly Phe Ala Ile Val
 20 25 30
 Tyr Tyr Leu Ile Gln Lys Phe His Ser Arg Ala Leu Tyr Tyr Lys Leu
 35 40 45

Ala Val Glu Gln Leu Gln Ser His Pro Glu Ala Gln Glu Ala Leu Gly
 50 55 60
 Pro Pro Leu Asn Ile His Tyr Leu Lys Leu Ile Asp Arg Glu Asn Phe
 65 70 75 80
 Val Asp Ile Val Asp Ala Lys Leu Lys Ile Pro Val Ser Gly Ser Lys
 85 90 95
 Ser Glu Gly Leu Leu Tyr Val His Ser Ser Arg Gly Gly Pro Phe Gln
 100 105 110
 Arg Trp His Leu Asp Glu Val Phe Leu Glu Leu Lys Asp Gly Gln Gln
 115 120 125
 Ile Pro Val Phe Lys Leu Ser Gly Glu Asn Gly Asp Glu Val Lys Lys
 130 135 140
 Glu
 145

<210> 5713

<211> 1996

<212> DNA

<213> Homo sapiens

<400> 5713

ncgagcgggt gctgctagcg gaggcgccat attggagggg acaaaactcc ggcgacagcg
 60
 agtgacacaa ataaaccctt ggacccctt gtccctcag ctctaaggcg cgcgatgttg
 120
 tacctagaag actatctgga aatgattgag cagcttccta tggatctgcg ggacgccttc
 180
 acggaatgac gcgagatgga cctgcagggt cagaatgcaa tggatcaact agaacaaaga
 240
 gtcagtgaat tctttatgaa tgcaaaagaa aataaacctg agtggaggga agagcaaatg
 300
 gcatccatca aaaagacta ctataaagct ttggaagatg cagatgagaa ggttcagttg
 360
 gcaaaccaga tatatgactt ggtagatcga cacttgagaa agctggatca ggaactggct
 420
 aagtttaaaa tggagctgga agctgataat gctggaatta cagaaatatt agagaggcga
 480
 tctttggaat tagacactcc ttcacagcca gtgaacaac accatgctca ttcacatact
 540
 ccagtggaaa aaaggaaata taatccaact tctcaccata cgacaacaga tcatattcct
 600
 gaaaagaat ttaaactgga agctcttcta tccaccctta cgtcagatgc ctctaaggaa
 660
 aatacactag ttgttcgaaa taataattcc acagcctctt ctaacaatgc ctacaatgtg
 720
 aatctctccc aacctctggg atcctataac attggctcgt tatcttcagg aactgggtgca
 780
 ggggcaatta ccatggcagc tgctcaagca gttcaggcta cagctcagat gaaggaggga
 840
 cgaagaacat caagtttaaa agccagttat gaagcattta agaataatga ctttcagttg
 900
 ggaagaagaat tttcaatggc cagggaaaca gttggtatt catcatcttc ggcacttatg
 960

acaacattaa cacagaatgc cagttcatca gcagccgact caccggagtgg tcgaaagagc
 1020
 aaaaaacaaca acaagtcttc aagccagcag tcactcatctt cctcctcttc ttcttcttta
 1080
 tcactcgtgtt cttcatcatc aactggttgta caagaaatct ctcaacaaac aactgtagtg
 1140
 ccagaatctg attcaaatag tcagggttgat tggacttacg acccaaatga acctcgatag
 1200
 tgcatttgta atcagggtatc ttatggtgag atggtgggat gtgataacca agattgcctt
 1260
 atagaatggt tccattatgg ctgcgttgga ttgacagagg caccaaaagg caaatggtac
 1320
 tgtccacagt gcactgctgc aatgaagaga agaggcagca gacacaaata aaggtggttc
 1380
 tttgttttga tgaagaaata aacttcagct gaagatttta tataggactt taaaaagaag
 1440
 agaagagaaa gaagaaacaa tgcatttcca ggcaaccact taaaggattt acatagacaa
 1500
 toctataaga tcttgaactt gaattttatg ggttgtattt taataatgta agtaaattat
 1560
 ttatgcactc ctggtgtgct atgaatatta ttccagttag ccttggatta tttcagtggc
 1620
 caacatatgc agacatttgt actcctcaac cattttctca aagtaattggg cattctatga
 1680
 ttttagcttc aagggaattcc aatgatgaag attttaagga aagtatttta tattcaacag
 1740
 gtatatcttg ctgcatgtac tgtactccag agctgttatg taacactgta tataaatggt
 1800
 tgcaaaaaaaa aaaaagtcag tgcttctaaa aagaatttaa gataatgggt tttaaatgc
 1860
 ctttataata agctttgttt ctttgtgaaa ctaattcagc aggcctgaagg aaatggttca
 1920
 tgtgataatg tgggctggta toctctagag tacctgggta cataaacgga aactcctgtt
 1980
 ggtaaaaagt attttg
 1996

<210> 5714

<211> 408

<212> PRT

<213> Homo sapiens

<400> 5714

Ile Glu Gln Leu Pro Met Asp Leu Arg Asp Arg Phe Thr Glu Met Arg
 1 5 10 15
 Glu Met Asp Leu Gln Val Gln Asn Ala Met Asp Gln Leu Glu Gln Arg
 20 25 30
 Val Ser Glu Phe Phe Met Asn Ala Lys Lys Asn Lys Pro Glu Trp Arg
 35 40 45
 Glu Glu Gln Met Ala Ser Ile Lys Lys Asp Tyr Tyr Lys Ala Leu Glu
 50 55 60
 Asp Ala Asp Glu Lys Val Gln Leu Ala Asn Gln Ile Tyr Asp Leu Val
 65 70 75 80
 Asp Arg His Leu Arg Lys Leu Asp Gln Glu Leu Ala Lys Phe Lys Met

85 90 95
 Glu Leu Glu Ala Asp Asn Ala Gly Ile Thr Glu Ile Leu Glu Arg Arg
 100 105 110
 Ser Leu Glu Leu Asp Thr Pro Ser Gln Pro Val Asn Asn His His Ala
 115 120 125
 His Ser His Thr Pro Val Glu Lys Arg Lys Tyr Asn Pro Thr Ser His
 130 135 140
 His Thr Thr Thr Asp His Ile Pro Glu Lys Lys Phe Lys Ser Glu Ala
 145 150 155 160
 Leu Leu Ser Thr Leu Thr Ser Asp Ala Ser Lys Glu Asn Thr Leu Gly
 165 170 175
 Cys Arg Asn Asn Asn Ser Thr Ala Ser Ser Asn Asn Ala Tyr Asn Val
 180 185 190
 Asn Ser Ser Gln Pro Leu Gly Ser Tyr Asn Ile Gly Ser Leu Ser Ser
 195 200 205
 Gly Thr Gly Ala Gly Ala Ile Thr Met Ala Ala Ala Gln Ala Val Gln
 210 215 220
 Ala Thr Ala Gln Met Lys Glu Gly Arg Arg Thr Ser Ser Leu Lys Ala
 225 230 235 240
 Ser Tyr Glu Ala Phe Lys Asn Asn Asp Phe Gln Leu Gly Lys Glu Phe
 245 250 255
 Ser Met Ala Arg Glu Thr Val Gly Tyr Ser Ser Ser Ser Ala Leu Met
 260 265 270
 Thr Thr Leu Thr Gln Asn Ala Ser Ser Ser Ala Ala Asp Ser Arg Ser
 275 280 285
 Gly Arg Lys Ser Lys Asn Asn Lys Ser Ser Ser Gln Gln Ser Ser
 290 295 300
 Ser Ser Ser Ser Ser Ser Ser Leu Ser Ser Cys Ser Ser Ser Ser Thr
 305 310 315 320
 Val Val Gln Glu Ile Ser Gln Gln Thr Thr Val Val Pro Glu Ser Asp
 325 330 335
 Ser Asn Ser Gln Val Asp Trp Thr Tyr Asp Pro Asn Glu Pro Arg Tyr
 340 345 350
 Cys Ile Cys Asn Gln Val Ser Tyr Gly Glu Met Val Gly Cys Asp Asn
 355 360 365
 Gln Asp Cys Pro Ile Glu Trp Phe His Tyr Gly Cys Val Gly Leu Thr
 370 375 380
 Glu Ala Pro Lys Gly Lys Trp Tyr Cys Pro Gln Cys Thr Ala Ala Met
 385 390 395 400
 Lys Arg Arg Gly Ser Arg His Lys
 405

<210> 5715

<211> 1458

<212> DNA

<213> Homo sapiens

<400> 5715

nggaaaggag ggtcaggcga gtccacgtga gggaagcccc cgctgtgcgc ggagcctctg
 60
 ctggcgaggag ggggagtgcc agccccagg agctaataccc cggctgatgg cgcaggggccg
 120
 ggggcttgcc cgtctagtgt gatgaaggag gcgaccccca aggtgggaag gcgcacgggt
 180

tggggtttga ggggtgatga ttggtgacgg aggggtgtatc ttcaggagga ggttcgagt
 240
 aagatcaaaag acttgaatga acacattgtt tgctgcctat gcgcgggcta cttcgtggat
 300
 gccaccacca tcacagagtg tcttcatact ttctgcaaga gttgtattgt gaagtacctc
 360
 caaactagca agtactgccc catgtgcaac attaagatcc acgagacaca gccactgctc
 420
 aacctcaaac tggaccgggt catgcaggac atcgtgtata agctggtgcc tggcttgc
 480
 gacagtgaag agaaacggat tcgggaattc taccagtccc gaggtttgga cggggtcacc
 540
 cagcccactg ggggaagacc agcactgagc aacctcggcc tccccctcag cagctttgac
 600
 cactcctaag ccactacta tcgctatgat gaggcagtga acctgtgcct ggagcggctg
 660
 aggtgaggag aaggtcagggt gttgcaggag gtgacagtgc caatgacca gagccaggga
 720
 gggctcagggt gagaggctga gcagtgagt agtgccatc ccttgaaga gagtatatca
 780
 tggctctggg tggggaagag gaggaaagat aggattccct aacctgtgct tatttcccc
 840
 cagttctggc aaagacaaga ataaaagcgt cctgcagggt agaagggctg aggggagggg
 900
 ctctctaagg agactcacct cccatggtcc tccctcaca caccctggcc tcttcccccc
 960
 cctccctgct ccagaaaca gtagtgcga tgttctgtta gagctgaggt acgccatctc
 1020
 cggagggtcc tgtgtcaccg cttgatgcta aacctcagc atgtgcagct ctttttgac
 1080
 aatgaagtcc tccctgatca catgacaatg aagcagatat gcctctccc ctggttcggc
 1140
 aaggtaaagg agggcacct ccttgggac acacccctt cagactcccc ccaaccatcc
 1200
 tacagtcctc aggggaagg tgggctgagg ggccctttga ataataaag aacattcccc
 1260
 acgtactcca acttcctcat tcttcctta gccatcccc ttgcttttac aataaagtgt
 1320
 gaaagagaag aggaggtagg ggccaagccc ccacccatc ccaactcccc tccctcccca
 1380
 gatatttatg tgaatatgaac tgcagcttta ttttttgaaa taaaaacttt taaaagcaa
 1440
 aaaaaaaaaa aaaaaaaa
 1458

<210> 5716

<211> 148

<212> PRT

<213> Homo sapiens

<400> 5716

Leu Gln Glu Glu Arg Val Lys Ile Lys Asp Leu Asn Glu His Ile

1 5 10 15

Val Cys Cys Leu Cys Ala Gly Tyr Phe Val Asp Ala Thr Thr Ile Thr

	20		25		30
Glu	Cys	Leu	His	Thr	Phe
	35		40		45
Thr	Ser	Lys	Tyr	Cys	Pro
	50		55		60
Pro	Leu	Leu	Asn	Leu	Lys
	65		70		75
Lys	Leu	Val	Pro	Gly	Leu
			85		90
Phe	Tyr	Gln	Ser	Arg	Gly
			100		105
Glu	Pro	Ala	Leu	Ser	Asn
			115		120
Ser	Lys	Ala	His	Tyr	Tyr
			130		135
Glu	Arg	Leu	Arg		
			145		

<210> 5717

<211> 1419

<212> DNA

<213> Homo sapiens

<400> 5717

```

gggccccctcc ttggtgtgat ccgtcagtggt ctccagggta agtctgcccc cccaccctcc
60
gtggggcgagg gagcccgagg cagcccagag gctgggggaa gggggtggac ttttggcccc
120
tttcggttat tccctccatc tcgtcaacag ctgccgcgcg caggcttagc tcattcctct
180
gacctgccag gaagcagaga gaccacaga gcaggaggga ggcagaaagt ggagacggac
240
ctgagcccca ggaagaggca ggcagaggct gaggctgatt ccacccagc ctgcctggac
300
aacctctctt agccgcagcc cctccagtt ccctaggggt tctgccccct cccctctctg
360
gggcaccagc cccccagggt cctgcacccc accatgtcga tggctgtgga aaccttgggc
420
ttcttcattg caactgtggg gctgctgatg ctgggggtga ctctgccaaa cagctactgg
480
cgagtgtcca ctgtgcacgg gaacgtcacc accaccaaca ccactctcga gaacctctgg
540
tttagctgtg ccaccgaact cctgggcgtc tacaactgct gggagttccc gtccatgctg
600
gocctctctg ggtatattca ggctgcagg gcaactcatg tcacgcccat cctcctgggc
660
ttcctcggcc tcttgctagg catagcgggc ctgcctgcca ccaacattgg gggcctggag
720
ctctccagga aagccaagct ggcggccacc gcaggggccc tcacattctt ggcgggtatc
780
tgccgggatg tggccatctc ctgggtacgc ttcaacatca cccgggaact cttogacccc
840
tgttaccctg gaaccaagta ctagctgggc ccgcctctct acctgggggt gagcgctcca
900

```

ctgatctcca tctctgggtgg cctctgcctc tgetccgcct gctgctgcgg ctctgacgag
 960
 gacccagccg ccagcgcccc gcggccctac caggctcccc tctccgtgat gccctcgcc
 1020
 acctcgacc aagaaggcga cagcagcttt ggcaataacg gcagaaacgc ctacgtgtag
 1080
 cagctctggc ccgtggggccc cgctgtcttc ccactgcccc aaggagaggg gacctggcgg
 1140
 gggcccatc ccctatagta acctcagggg ccggccacgc ccgcctccc tagccccgcc
 1200
 ccggccacgg ccccggtgtct tgcaactctca tggccccctc agccaagaa ctgctcttgg
 1260
 gaagtcgcat atctccctc tgaggctgga tccctcatct tctgacctg ggtctgggg
 1320
 tgtgaagggg acggtgtccc cgcacgtttg tattgtgtat aaatacatc attaatat
 1380
 gcataattgt accgttaaaa aaaaaaaaa aaaaaaaaa
 1419

<210> 5718

<211> 228

<212> PRT

<213> Homo sapiens

<400> 5718

Met	Ser	Met	Ala	Val	Glu	Thr	Phe	Gly	Phe	Phe	Met	Ala	Thr	Val	Gly
1				5					10					15	
Leu	Leu	Met	Leu	Gly	Val	Thr	Leu	Pro	Asn	Ser	Tyr	Trp	Arg	Val	Ser
			20					25					30		
Thr	Val	His	Gly	Asn	Val	Ile	Thr	Thr	Asn	Thr	Ile	Phe	Glu	Asn	Leu
			35				40					45			
Trp	Phe	Ser	Cys	Ala	Thr	Asp	Ser	Leu	Gly	Val	Tyr	Asn	Cys	Trp	Glu
	50				55						60				
Phe	Pro	Ser	Met	Leu	Ala	Leu	Ser	Gly	Tyr	Ile	Gln	Ala	Cys	Arg	Ala
	65				70				75					80	
Leu	Met	Ile	Thr	Ala	Ile	Leu	Leu	Gly	Phe	Leu	Gly	Leu	Leu	Leu	Gly
			85					90						95	
Ile	Ala	Gly	Leu	Arg	Cys	Thr	Asn	Ile	Gly	Gly	Leu	Glu	Leu	Ser	Arg
			100					105					110		
Lys	Ala	Lys	Leu	Ala	Ala	Thr	Ala	Gly	Ala	Leu	His	Ile	Leu	Ala	Gly
		115					120					125			
Ile	Cys	Gly	Met	Val	Ala	Ile	Ser	Trp	Tyr	Ala	Phe	Asn	Ile	Thr	Arg
	130					135					140				
Asp	Phe	Phe	Asp	Pro	Leu	Tyr	Pro	Gly	Thr	Lys	Tyr	Glu	Leu	Gly	Pro
	145				150					155				160	
Ala	Leu	Tyr	Leu	Gly	Trp	Ser	Ala	Ser	Leu	Ile	Ser	Ile	Leu	Gly	Gly
			165					170					175		
Leu	Cys	Leu	Cys	Ser	Ala	Cys	Cys	Cys	Gly	Ser	Asp	Glu	Asp	Pro	Ala
			180					185					190		
Ala	Ser	Ala	Arg	Arg	Pro	Tyr	Gln	Ala	Pro	Val	Ser	Val	Met	Pro	Val
		195					200					205			
Ala	Thr	Ser	Asp	Gln	Glu	Gly	Asp	Ser	Ser	Phe	Gly	Lys	Tyr	Gly	Arg
	210					215					220				
Asn	Ala	Tyr	Val												

225

<210> 5719

<211> 2267

<212> DNA

<213> Homo sapiens

<400> 5719

ntgtcagcag agccctgtac cgtgcgcctc agcaaacctc tccatctatt gctccaaggc
60
ccgcctttga tgttaggtcc tggagaaggg gaagtgggtc gggaccacaca ggtccagctg
120
ctccgtgccca tgcagtcggg aaagggaaac aggcactaat caaaggcaac tgcctactcg
180
tacctctttc ttctgaagca catgatgaag tctattctca gcagcgattt tctttacaaa
240
ctctttcgtt aatcccccca gagggaagat ggttctcttc agggcctcct gggaaacctg
300
gcatttctaa cttcaaacgg atttctgaaa agcccttcgg gcttcttaac gtgctctctg
360
tcaaagactt cttcatcttc caggggaagt cttgcatagt gacctgtggc aatggcatct
420
gccccgaac acatcattcc aatactcctt tacytaggac acttgatgga aagggatgtc
480
taagatctgg caaactctgt aagcatcttc acagtctttg tcggcagtag agaccccatg
540
ttcatccagt gagtccagt tcttcataaa caccctgttc acctggtaac ctctccgect
600
cagcagcagc gcggccacgg cgctgtccac gccgcggagc agggcgacaca cgacgtgccg
660
caaggcctgc atccgccagt gcgccctgcc ggccggcgtg acagcgccgt ggccgcgctg
720
ctgctgaggg ggagaggtta ccaggtgaca ggggtgttta tgaagaactg ggactcactg
780
gatgaacatg gggctgtgac tgcgacaaa gactgtgaag atgcttacag agtttgccag
840
atcttagaca tccctttcca tcaagtgtcc tacgtaaaag agtattggaa tgatgtgttc
900
agtgactttt tgaatgagta tgaaaaagga aggaactcca atcctgacat agtttgcaac
960
aagcacatca aatttagttg cttttttcat tatgctgtgg ataactcttg ggcagatgcc
1020
atggccacag gtcactatgc aagaacttcc ctggaagatg aagaagctt tgagcagaag
1080
cacgttaaga agcccgaagg gcttttcaga aatcggtttg aagttagaaa tgcggtaaaa
1140
ctctccagg cagctgacag ctttaaagac cagaccttct ttctcagcca ggtttccag
1200
gatgccctga ggagaacctt cttccctctg gggggattaa cgaaagagtt tgtaaagaaa
1260
atcgctgctg agaatagact tcatcatgtg cttcagaaga aagagagcat gggcctgtgt
1320
ttcatcggga agaggaattt tgaacatttc cttcttcagt atctgcagcc tgcacctggg
1380

cactttatatt ccatagaaga caataaggtt ctgggaacac ataaaggttg gttcctgtat
 1440
 accttggggcc agagagcaaa cataggtggc ctgagagagc cctggtacgt ggtggagaag
 1500
 gacagcgtca aggggtgacgt gtttgtggcc ccccgacag accacccagc cctgtacagg
 1560
 gacctgctga ggaccagccg cgtgcactgg attgcgagg agcctcccg agcactggct
 1620
 cgggacaaga tgatggagtg ccacttccga ttccgccacc agatggcact agtgcctgtg
 1680
 gtgctgaccc tcaatcaaga tggcaccgtg tgggtgacag ctgtgcaggc tgtgctgtgc
 1740
 ctgtccacag gacagtgttc tgtgttctac aagggggacg agtgccctggg cagcgggaag
 1800
 atcctgcggc tggggccgtc tgcctacag ctccagaagg gccagcgag agctgggatg
 1860
 gccactgaga gccccagtga cagcccagaa gatggtccag gcctgagtc cttgctctga
 1920
 cagagatgga tctgctagaa ggaacctgga gagcaggacc catggctggg cggctggtga
 1980
 gcagtgccagg tgccccaggg ccagcttgct gctgccccaa gcagagggaag ccgggctggc
 2040
 tgaggggtccg aaaagcctgc agggggcccg cgagcccag gaagagcctc agctccaggc
 2100
 tggggctctg gctgctggag catctgctgg ctgggtgggt ggcccagatt ccccttcacc
 2160
 gcccccaggg aggggttccc acctcagagt acaccaggg gacctgcaga gggggctgtc
 2220
 gggacagcgt ggaataaaca ttatttcaag gaaaaaaaa aaaaaaa
 2267

<210> 5720

<211> 455

<212> PRT

<213> Homo sapiens

<400> 5720

Val	Pro	Val	Leu	His	Lys	His	Pro	Cys	His	Leu	Val	Thr	Ser	Pro	Pro
1				5					10					15	
Gln	Gln	Gln	Arg	Gly	His	Gly	Ala	Val	His	Ala	Ala	Gly	Gln	Gly	Ala
			20					25					30		
His	Asp	Val	Pro	Gln	Gly	Leu	His	Pro	Pro	Val	Ala	Pro	Ser	Gly	Gly
	35					40						45			
Val	Asp	Ser	Ala	Val	Ala	Ala	Leu	Leu	Leu	Arg	Arg	Arg	Gly	Tyr	Gln
	50					55					60				
Val	Thr	Gly	Val	Phe	Met	Lys	Asn	Trp	Asp	Ser	Leu	Asp	Glu	His	Gly
	65				70					75				80	
Val	Cys	Thr	Ala	Asp	Lys	Asp	Cys	Glu	Asp	Ala	Tyr	Arg	Val	Cys	Gln
			85					90						95	
Ile	Leu	Asp	Ile	Pro	Phe	His	Gln	Val	Ser	Tyr	Val	Lys	Glu	Tyr	Trp
	100							105					110		
Asn	Asp	Val	Phe	Ser	Asp	Phe	Leu	Asn	Glu	Tyr	Glu	Lys	Gly	Arg	Thr
			115				120					125			
Pro	Asn	Pro	Asp	Ile	Val	Cys	Asn	Lys	His	Ile	Lys	Phe	Ser	Cys	Phe

130	135	140
Phe His Tyr Ala Val Asp Asn Leu Gly Ala Asp Ala Ile Ala Thr Gly		
145	150	155
His Tyr Ala Arg Thr Ser Leu Glu Asp Glu Glu Val Phe Glu Gln Lys		160
	165	170
His Val Lys Lys Pro Glu Gly Leu Phe Arg Asn Arg Phe Glu Val Arg		175
	180	185
Asn Ala Val Lys Leu Leu Gln Ala Ala Asp Ser Phe Lys Asp Gln Thr		190
	195	200
Phe Phe Leu Ser Gln Val Ser Gln Asp Ala Leu Arg Arg Thr Ile Phe		205
	210	215
Pro Leu Gly Gly Leu Thr Lys Glu Phe Val Lys Lys Ile Ala Ala Glu		220
225	230	235
Asn Arg Leu His His Val Leu Gln Lys Lys Glu Ser Met Gly Met Cys		240
	245	250
Phe Ile Gly Lys Arg Asn Phe Glu His Phe Leu Leu Gln Tyr Leu Gln		255
	260	265
Pro Arg Pro Gly His Phe Ile Ser Ile Glu Asp Asn Lys Val Leu Gly		270
	275	280
Thr His Lys Gly Trp Phe Leu Tyr Thr Leu Gly Gln Arg Ala Asn Ile		285
	290	295
Gly Gly Leu Arg Glu Pro Trp Tyr Val Val Glu Lys Asp Ser Val Lys		300
305	310	315
Gly Asp Val Phe Val Ala Pro Arg Thr Asp His Pro Ala Leu Tyr Arg		320
	325	330
Asp Leu Leu Arg Thr Ser Arg Val His Trp Ile Ala Glu Glu Pro Pro		335
	340	345
Ala Ala Leu Val Arg Asp Lys Met Met Glu Cys His Phe Arg Phe Arg		350
	355	360
His Gln Met Ala Leu Val Pro Cys Val Leu Thr Leu Asn Gln Asp Gly		365
	370	375
Thr Val Trp Val Thr Ala Val Gln Ala Val Arg Ala Leu Ala Thr Gly		380
385	390	395
Gln Phe Ala Val Phe Tyr Lys Gly Asp Glu Cys Leu Gly Ser Gly Lys		400
	405	410
Ile Leu Arg Leu Gly Pro Ser Ala Tyr Thr Leu Gln Lys Gly Gln Arg		415
	420	425
Arg Ala Gly Met Ala Thr Glu Ser Pro Ser Asp Ser Pro Glu Asp Gly		430
	435	440
Pro Gly Leu Ser Pro Leu Leu		445
450	455	

<210> 5721

<211> 400

<212> DNA

<213> Homo sapiens

<400> 5721

ttacacatag ctaaccagac aggcagatca atcagaattc ccccatcaga aagaaaagcc
 60
 cttatgttag ctatgggata tcatgagaag ggcagagctt tcctgaaaag aaaagaatat
 120
 ggaatagcct tgccatgtct gtggacgct gacaaatatt tctggtgggc gctttgttac
 180

ttggtgaaca ccagctttaa ggaagatggc ccagactata cagaacacct gccatgccct
 240
 tgagactgca gactttcatc tacaacagtg gttaatgtaa aagagtagtt atgggtgtaa
 300
 ctgggtgaatt tcttcttccc ttgtatttc taattgacct ttctctccctg taaagaaaag
 360
 aattttcaag caggtaggat atgctctctt tttctgtaca
 400

<210> 5722

<211> 80

<212> PRT

<213> Homo sapiens

<400> 5722

Leu	Asp	Ile	Ala	Asn	Gln	Thr	Gly	Arg	Ser	Ile	Arg	Ile	Pro	Pro	Ser
1				5				10				15			
Glu	Arg	Lys	Ala	Leu	Met	Leu	Ala	Met	Gly	Tyr	His	Glu	Lys	Gly	Arg
			20					25				30			
Ala	Phe	Leu	Lys	Arg	Lys	Glu	Tyr	Gly	Ile	Ala	Leu	Pro	Cys	Leu	Leu
			35					40				45			
Asp	Ala	Asp	Lys	Tyr	Phe	Trp	Trp	Ala	Leu	Leu	Tyr	Leu	Val	Asn	Thr
			50			55					60				
Ser	Phe	Lys	Glu	Asp	Gly	Pro	Asp	Tyr	Thr	Glu	His	Leu	Pro	Cys	Pro
65					70					75				80	

<210> 5723

<211> 376

<212> DNA

<213> Homo sapiens

<400> 5723

nntaccacat tttttttttt tcacccaccc cagccaaaac tcagtgcctt caaggtctgg
 60
 aagaatgtgg agagtgttct agaagcctgt cgaaaaatgg ggggtgcctga ggtatggggg
 120
 ctgctttteta aagagtgggtg gcatgccgga etcagcggag ccatgtggca tggatgggtg
 180
 gcttccattt gcagcggatg tctgctctca gatgaaggca caggctgccc ctgcctgccc
 240
 cagcatgccc cctgccctgc atgccccctg cctgcatgt cacctgtcct acacatcccc
 300
 tgccctgcag gcccatctt gtctctcatg tcacctgtcc tgcacatgcc ctgccttgca
 360
 ctctctctgc acgct
 376

<210> 5724

<211> 125

<212> PRT

<213> Homo sapiens

<400> 5724

Xaa Thr Thr Phe Ser Ser Phe His Pro Pro Gln Pro Lys Leu Ser Ala

1	5	10	15
Leu Lys Ala	Arg Lys Asn Val Glu Ser Phe Leu Glu Ala Cys Arg Lys		
	20	25	30
Met Gly Val	Pro Glu Val Trp Gly Leu Leu Ser Lys Glu Trp Trp His		
	35	40	45
Ala Gly Leu Ser Gly Ala Met Trp His Gly Trp Trp Ala Ser Ile Cys			
	50	55	60
Ser Gly Cys Leu Leu Ser Asp Glu Gly Thr Gly Cys Pro Cys Leu Pro			
	65	70	75
Gln His Ala Pro Cys Pro Ala Cys Pro Leu Pro Cys Met Ser Pro Val			
	85	90	95
Leu His Ile Pro Cys Pro Ala Gly Pro Ile Leu Ser Cys Met Ser Pro			
	100	105	110
Val Leu His Met Pro Cys Pro Ala Leu Leu Leu His Ala			
	115	120	125

<210> 5725

<211> 1160

<212> DNA

<213> Homo sapiens

<400> 5725

```

gctttttttt ctttttccc tccggtcttc ctttttgact ccctccccc ttatgtctgc
60
ccagccctcc cctgtgtgtc gagaagtggg ggaggggttc gccctccagg ttcccccccc
120
accgcgcacg ggcgagcatg gggggcaagc agagcacggc gaccgcctcc cggggggccc
180
ttccccgggg tctccaccga tgacagcgcc gtgcgccgcg cgggaggggc cccccatttc
240
gggcactacc ggacggggcg cggggccatg gggctgcgca gcgcctcggc cagctcgggt
300
gcaggcatgg gcattggacc cagcacggcc ggggggggtc cttttggcct ctacaccccc
360
gcctccccgg gcaccggcga ctccgagagg gcgcccggcg gcggagggtc tgcgtccgac
420
tccacctatg cccatggcaa tggttaccag gagacgggcg gcggtcacca tagagacggg
480
atgctgtacc tgggctcccc agcctcgtgt gcggatgtct tacctctgca catgcacccc
540
aggtgggtca gctcgcatag tggtttcaag tgccccattt gctccaagtc tgtgtcttct
600
gacgagatgg aaatgcactt tataatgtgt ttgagcaaac ctgcctcttc ctacaacgat
660
gatgtgtgta ctaaagacgc gggtagtgt gtgatctgcc tggaggagct gctcgagggg
720
gacacgatag ccaggctgcc ctgcctgtgc atctatcaca aaagctgcat agactcgtgg
780
tttgaagtga acagattctt tccggaacac cctgcggact gacctgctgg cttgcttctc
840
gactcctctc aaagggacag agcgcctctg ctccagggag gaggtccacc ggacctgggg
900
gcagagctga gcttgggaca ccagcgggaa caggggcacc cttctgcact gacttcagaa
960

```

tcattggttct ccttctctcc ctgaggacac caaattggat gagagcaagt ttgagagaag
 1020
 aatgaatcaa ctgctatcct tcccctcacc cctcagccca ggagggaag ggcattttct
 1080
 ttttcatctt tgaaaggcat tgtgggtctg tctttaaagt gtttcaaaa aaattatata
 1140
 aaaaaaagtc tagtgtcgac
 1160

<210> 5726

<211> 273

<212> PRT

<213> Homo sapiens

<400> 5726

Ala Phe Phe Pro Phe Leu Pro Pro Arg Leu Leu Phe Asp Ser Leu Pro
 1 5 10 15
 Leu Tyr Ala Arg Pro Ala Leu Pro Leu Leu Arg Ser Gly Gly Gly
 20 25 30
 Ser Arg Pro Pro Gly Ser Arg Pro Thr Ala His Gly Arg Ala Trp Gly
 35 40 45
 Ala Ser Arg Ala Arg Arg Pro Ala Pro Gly Gly Pro Phe Pro Gly Val
 50 55 60
 Ser Thr Asp Asp Ser Ala Val Pro Pro Pro Gly Gly Ala Pro His Phe
 65 70 75 80
 Gly His Tyr Arg Thr Gly Gly Gly Ala Met Gly Leu Arg Ser Ala Ser
 85 90 95
 Val Ser Ser Val Ala Gly Met Gly Met Asp Pro Ser Thr Ala Gly Gly
 100 105 110
 Val Pro Phe Gly Leu Tyr Thr Pro Ala Ser Arg Gly Thr Gly Asp Ser
 115 120 125
 Glu Arg Ala Pro Gly Gly Gly Gly Ser Ala Ser Asp Ser Thr Tyr Ala
 130 135 140
 His Gly Asn Gly Tyr Gln Glu Thr Gly Gly Gly His His Arg Asp Gly
 145 150 155 160
 Met Leu Tyr Leu Gly Ser Arg Ala Ser Leu Ala Asp Ala Leu Pro Leu
 165 170 175
 His Ile Ala Pro Arg Trp Phe Ser Ser His Ser Gly Phe Lys Cys Pro
 180 185 190
 Ile Cys Ser Lys Ser Val Ala Ser Asp Glu Met Glu Met His Phe Ile
 195 200 205
 Met Cys Leu Ser Lys Pro Arg Leu Ser Tyr Asn Asp Asp Val Leu Thr
 210 215 220
 Lys Asp Ala Gly Glu Cys Val Ile Cys Leu Glu Glu Leu Leu Gln Gly
 225 230 235 240
 Asp Thr Ile Ala Arg Leu Pro Cys Leu Cys Ile Tyr His Lys Ser Cys
 245 250 255
 Ile Asp Ser Trp Phe Glu Val Asn Arg Ser Cys Pro Glu His Pro Ala
 260 265 270
 Asp

<210> 5727

<211> 1237

<212> DNA

<213> Homo sapiens

<400> 5727

ntgagaaggg aggtgaccac caggactggc tctgtgagta ccacacagtg ggaggggggtg
 60
 gggggccacca tgtcatcata tcagaaggaa ctggagaaat acagagacat agatgaagat
 120
 gagatcctaa ggaccttgag ccccgaggag ctgagcagc tggactgca actacaggag
 180
 atggatcctg agaacatgct cctgccagct ggactaagac aacgtgacca gacaagaag
 240
 agcccaacgg ggccactgga ccgagaggcc cttttgcagt acttggagca acaggcacta
 300
 gaagtc aaag agcgtgatga cttgtgtccc ttcacaggcg agaagaagg gaaacctat
 360
 attcagccca agagggaaat cccagcagag gacgagatca ccctggagcc tgagctggag
 420
 gaggcactgg cacatgccac agatgctgaa atgtgtgaca ttgcagcaat tctggacatg
 480
 tacacactga tgagtaacaa gcaatactat gatgcctct gcagtggaga aatctgcaac
 540
 actgaaggca ttagcagtggt ggtacagcct gacaagtata agccagtgcc ggatgaaccc
 600
 ccaaatccca caaacattga ggagatacta aagaggggtcc gaagcaatga caaggagctg
 660
 gagggagtga acttgaataa taccacaggac atcccaatac ccatgctaag tgagctgtgt
 720
 gagggcaatga agggcaatac ctatgtgcgg agcttcagtc tggtagccac gaggagtggt
 780
 gaccccatg ccaatgcagt ggctgacatg ttgcgtgaga atcgtagcct ccagagccta
 840
 aacatcgaat ccaacttcat tagcagcaca ggactcatgg ctgtgctgaa ggcagttcgg
 900
 gaaaaatgcc cactcactga gctccgtgta gacaatcagc gccagtggcc tggtagtgca
 960
 gtggagatgg agatggccac cgtgctagag cagtgtccct ctattgtccg ctttggctac
 1020
 cactttacac agcagggggc acgagctcgg gcagccagg ccatgacccg aaacaatgaa
 1080
 ctacgtcgcc agcaaaagaa gagataacac tgcatttccc ttaccaact agcgtctggga
 1140
 gcactggaca cttaaatcct catctgtcct cctttcctgt aaataaaagc ccttctatcc
 1200
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaa
 1237

<210> 5728

<211> 368

<212> PRT

<213> Homo sapiens

<400> 5728

Xaa Arg Arg Glu Val Thr Thr Arg Thr Gly Ser Val Ser Thr Thr Gln

```

1           5           10           15
Trp Glu Gly Val Gly Ala Thr Met Ser Ser Tyr Gln Lys Glu Leu Glu
20
Lys Tyr Arg Asp Ile Asp Glu Asp Glu Ile Leu Arg Thr Leu Ser Pro
35
Glu Glu Leu Glu Gln Leu Asp Cys Glu Leu Gln Glu Met Asp Pro Glu
50
Asn Met Leu Leu Pro Ala Gly Leu Arg Gln Arg Asp Gln Thr Lys Lys
65
Ser Pro Thr Gly Pro Leu Asp Arg Glu Ala Leu Leu Gln Tyr Leu Glu
85
Gln Gln Ala Leu Glu Val Lys Glu Arg Asp Asp Leu Val Pro Phe Thr
100
Gly Glu Lys Lys Gly Lys Pro Tyr Ile Gln Pro Lys Arg Glu Ile Pro
115
Ala Glu Glu Gln Ile Thr Leu Glu Pro Glu Leu Glu Glu Ala Leu Ala
130
His Ala Thr Asp Ala Glu Met Cys Asp Ile Ala Ala Ile Leu Asp Met
145
Tyr Thr Leu Met Ser Asn Lys Gln Tyr Tyr Asp Ala Leu Cys Ser Gly
165
Glu Ile Cys Asn Thr Glu Gly Ile Ser Ser Val Val Gln Pro Asp Lys
180
Tyr Lys Pro Val Pro Asp Glu Pro Pro Asn Pro Thr Asn Ile Glu Glu
195
Ile Leu Lys Arg Val Arg Ser Asn Asp Lys Glu Leu Glu Glu Val Asn
210
Leu Asn Asn Ile Gln Asp Ile Pro Ile Pro Met Leu Ser Glu Leu Cys
225
Glu Ala Met Lys Ala Asn Thr Tyr Val Arg Ser Phe Ser Leu Val Ala
245
Thr Arg Ser Gly Asp Pro Ile Ala Asn Ala Val Ala Asp Met Leu Arg
260
Glu Asn Arg Ser Leu Gln Ser Leu Asn Ile Glu Ser Asn Phe Ile Ser
275
Ser Thr Gly Leu Met Ala Val Leu Lys Ala Val Arg Glu Asn Ala Thr
290
Leu Thr Glu Leu Arg Val Asp Asn Gln Arg Gln Trp Pro Gly Asp Ala
305
Val Glu Met Glu Met Ala Thr Val Leu Glu Gln Cys Pro Ser Ile Val
325
Arg Phe Gly Tyr His Phe Thr Gln Gln Gly Pro Arg Ala Arg Ala Ala
340
Gln Ala Met Thr Arg Asn Asn Glu Leu Arg Arg Gln Gln Lys Lys Arg
355
360
365

```

<210> 5729

<211> 381

<212> DNA

<213> Homo sapiens

<400> 5729

naaatttatt actacggatc acagcagcaa cggcgcgga gggcggcgcc agactcattt

60

gccccgcagg tagatcttgg gggctctgcca gcttcgggg gcttctctta gccccgcctt
 120
 cagccagatg cgcctcaggt cttctctgaa cttgatctgc aagacgcaga gagagggacc
 180
 gccaagtaat tcgtggcaaa gaaacgtgtt ctcagcaett tgcctctcca ggccaagca
 240
 gggggcgaact cactctgttg cgtctcaggg gtcctctctg gaccttctct cgcaggaacc
 300
 gcgtcttctt caccagcttc cggtaacttg ggtgggtcat cttcggcgg cggatcttca
 360
 gcacgttttt gactaaatt t
 381

<210> 5730

<211> 64

<212> PRT

<213> Homo sapiens

<400> 5730

Phe	Val	Ala	Lys	Lys	Arg	Val	Leu	Ser	Thr	Leu	Pro	Ser	Gln	Gly	Gln
1				5					10				15		
Ala	Gly	Gly	His	Ser	Pro	Ala	Cys	Val	Ser	Gly	Val	Pro	Pro	Gly	Pro
			20					25				30			
Ser	Ser	Ala	Gly	Thr	Ala	Ser	Ser	Ser	Pro	Ala	Ser	Gly	Thr	Cys	Gly
		35					40					45			
Gly	Ser	Ser	Ser	Ala	Gly	Gly	Ser	Ser	Ala	Arg	Phe	Cys	Thr	Lys	Phe
		50				55					60				

<210> 5731

<211> 891

<212> DNA

<213> Homo sapiens

<400> 5731

ccggccgcgt ccaggctgcg ggccgaagcc gggctcgggg cgcctgcgcg gcgggcgctc
 60
 gccagctact tgctcttctt gcggtctctac cgggtgctca ccaaggcggc caccagtgcc
 120
 attttgtcag cacttgggaa cttctctggc cagatgattg agaagaagcg gaaaaagaa
 180
 aactctagaa gtctggatgt cgggtggcct ctgagatag cggtttacgg gttcttcttc
 240
 acagggcgc tgagtcaett cttctacttc ttcattggaac attggatccc tctgaggtc
 300
 ccctggcag ggctcaggag gcttctctg gaccgctctg tctttgcacc ggccttcttc
 360
 atgttggtct tctctcatcat gaactttctg gaggggaaa acgcctcagc cttcgcgcgc
 420
 aagatgaggg ggggcttctg gccggcgctg aggatgaact ggcgggtgtg gacgccacta
 480
 cagttcatca acatcaacta cgtccctctg aagttccggg tgctctctgc caactgggca
 540
 gctctgttct ggtatgccta cctggcctcc ttggggaagt gacgaccgct gggagaacat
 600

caggtgcact gtggacgtgg gtctgggggt ctcaaccgcc cagcgagagc agaaccaatc
 660
 cagtcaggat gtcactgact ctaaatcagg tgattcaaga tgcccaaaaa tgatggatag
 720
 agaaacagaa atctctgaat gtcagaaccc tgtcttttaa aaaggcagtc actgccttca
 780
 ggtggtgctg cccagaaaac ttaaaattta gtcaggcgag tttaattgt tactgtggac
 840
 cgaattagga tcacaataaa tgataatgca ggttcttcaa aaaaaaaaaa a
 891

<210> 5732

<211> 193

<212> PRT

<213> Homo sapiens

<400> 5732

Pro	Ala	Ala	Ser	Arg	Leu	Arg	Ala	Glu	Ala	Gly	Leu	Gly	Ala	Leu	Pro
1			5					10					15		
Arg	Arg	Ala	Leu	Ala	Gln	Tyr	Leu	Leu	Phe	Leu	Arg	Leu	Tyr	Pro	Val
		20						25					30		
Leu	Thr	Lys	Ala	Ala	Thr	Ser	Gly	Ile	Leu	Ser	Ala	Leu	Gly	Asn	Phe
		35					40					45			
Leu	Ala	Gln	Met	Ile	Glu	Lys	Lys	Arg	Lys	Lys	Glu	Asn	Ser	Arg	Ser
		50				55				60					
Leu	Asp	Val	Gly	Gly	Pro	Leu	Arg	Tyr	Ala	Val	Tyr	Gly	Phe	Phe	Phe
		65			70				75					80	
Thr	Gly	Pro	Leu	Ser	His	Phe	Phe	Tyr	Phe	Met	Glu	His	Trp	Ile	
			85					90				95			
Pro	Pro	Glu	Val	Pro	Leu	Ala	Gly	Leu	Arg	Arg	Leu	Leu	Asp	Arg	
		100						105				110			
Leu	Val	Phe	Ala	Pro	Ala	Phe	Leu	Met	Leu	Phe	Phe	Leu	Ile	Met	Asn
		115					120					125			
Phe	Leu	Glu	Gly	Lys	Asp	Ala	Ser	Ala	Phe	Ala	Ala	Lys	Met	Arg	Gly
		130				135					140				
Gly	Phe	Trp	Pro	Ala	Leu	Arg	Met	Asn	Trp	Arg	Val	Trp	Thr	Pro	Leu
		145			150				155					160	
Gln	Phe	Ile	Asn	Ile	Asn	Tyr	Val	Pro	Leu	Lys	Phe	Arg	Val	Leu	Phe
			165					170					175		
Ala	Asn	Leu	Ala	Ala	Leu	Phe	Trp	Tyr	Ala	Tyr	Leu	Ala	Ser	Leu	Gly
			180					185					190		

Lys

<210> 5733

<211> 950

<212> DNA

<213> Homo sapiens

<400> 5733

nnccacgtcg tcattctccc cggggacggt gggagtgcca cggccgcat cagcttcaca
 60
 ggggccttga aaattccagg cgtgatagag ttctcactgt gtctgctgtt tgccaagctg
 120

gtcagctata ctttctcttt ctggctgccc ctgtacatca cgaatgtgga tcaccttgat
 180
 gccaaaaagg cggggtgcac aggtagcccc gacctctca gccattccag ccacagaaca
 240
 tcaaagttag cgagtactgc gctggctgtg gcttcagaga acctgtatgt gccacgtgga
 300
 aaaacaggac accagagccc accagacagt gccggccagc agagaagcag agagccagcg
 360
 ccacacaaca tcaagaaggc cgacaaccag gttggaaacc aagacggagc tcagacccac
 420
 cacatgcccc cagaggcttt tccagcacc atgatgttcc ggactgacct aaaaactaat
 480
 tgtcgagaag ccaaggggtga ggaggcagga agcacctccg gttggaggca cccaggcttg
 540
 ccagccacag agcgccccga agtcaccgtc atcccagccc ctggccttcc tgccgccc
 600
 cggggccatg gcgctgctgt tcagctcagg cacaggggca cagcagaggt ttgggaagcg
 660
 gtctccccac cggcactggg attggcgggt ccaagcccag caaccgctt cgctccacaa
 720
 cacacaccac acctgggact gtttttaata catagcaaca gactgggtta tttatttaag
 780
 atgtgtattg tgtcatatga agtttaagag acataaatgg cattttgtta tttatttaaga
 840
 caaactccaa tttgtctctg gctgtttttt tcagtttgtt ctagcaaaat acttatctgc
 900
 cctttgaaat aaaatgtttt tgtttaaaaa atctcaaaaa aaaaaaaaaa
 950

<210> 5734

<211> 82

<212> PRT

<213> Homo sapiens

<400> 5734

Xaa His Val Val Ile Leu Pro Gly Asp Gly Gly Ser Gly Thr Ala Ala
 1 5 10 15
 Ile Ser Phe Thr Gly Ala Leu Lys Ile Pro Gly Val Ile Glu Phe Ser
 20 25 30
 Leu Cys Leu Leu Phe Ala Lys Leu Val Ser Tyr Thr Phe Leu Phe Trp
 35 40 45
 Leu Pro Leu Tyr Ile Thr Asn Val Asp His Leu Asp Ala Lys Lys Ala
 50 55 60
 Gly Cys Thr Gly Ser Pro Asp Pro Leu Arg His Ser Ser His Arg Thr
 65 70 75 80
 Ser Lys

<210> 5735

<211> 4241

<212> DNA

<213> Homo sapiens

<400> 5735

ctagaattca gcggccgctg aattctagcg agcaggcggc aggcacggtc cgtgcccagc
60
aggcgagcga gcgggaagac gcagccacct tctccaccag ccagcccaca gcggtttgtt
120
cccttctcg ggagtgcgcc aatgcctggg ccgacccaaa ccctgtcccc aaatggcgag
180
aacaacaacg acatcatcca ggataataac gggaccatca ttcctttccc gaagcacaca
240
gtgcgcgggg agcgttccta cagttgggga atggcggcca atgtgtattc tacctcgata
300
acccaagaga ctatgagcag acatgacatc attgcatggg ttaatgacat agtatcttta
360
aactacacaa aagtgaaca gctttgttca ggagcggcct attgccaatt catggacatg
420
ctcttcctcg gctgcattag ttggaagaa gtaaaatttc aagcaaagct ggaacatgaa
480
tatattcaca attttaact tctgcaagca tcatttaagc gaatgaacgt tgataaggta
540
attccagtgg agaagctagt gaaaggacgt ttccaggaca acctggattt tattcaatgg
600
tttaagaaat tctatgatgc taactacgat ggggaaggag atgatcctgt agaggcacga
660
caaggggcaag atgcaatttc tcctcctgac cctgggtgaac agatcttcaa cctgccaaaa
720
aagtctcacc atgcaaaact cccacagca ggtgcagcta aatcaagtcc agcagctaaa
780
ccaggatcca cacttctcg accctcatca gccaaaaggg cttcttcagg tggctcagca
840
tccaaatccg ataaagattt agaaacgcag gtcatacagc ttaatgaaca ggtacattca
900
ttaaaaacttg cccttgaagg cgtggaaaag gaaagggtatt tctactttgg gaagttgaga
960
gagatcgagc tactctgccca agaacacggg caggaaaatg atgacctcgt cgagagacta
1020
atggacatcc tgtatgcttc agaagaacac gagggccaca cagaagagcc ggaagcagag
1080
gagcaagccc acgaacagca gcccccgcag cagggaagat actgaccac cccggtgct
1140
cttgacactt ccatttgtgtg tgggaacggt tcttctggag aattggaaca tgtgtggccc
1200
caagctcaac agaaccaggt tgttcccaat ctgccgttac catcaacgca ctgtgcata
1260
tgccagccac tgcgcttggt tccattttt tttgccaagg tgtattagcg gacggccctc
1320
tggccacctt cccgagagat cgtagggtca catacatcca acttcaccac ttggctgctt
1380
gagatttggt ctgctctttt ctctatttct ttccagaaca actctttccc accccaacac
1440
cactgccacc acccctcttt ttatcctggt gtgaacaat ggtaatttga tatattggtat
1500
ttatattggc atttttcaac ccagtgtcac tagatgtcac acacatttgt ggtgctttga
1560
tgtttgcaag tctaacctct gaacataaat ttggtcaaat aattggaaca aagggaaca
1620

gatacttgat atgaaagcca taatgacggt gacttggtgc gtgggggaaa acataaggtc
1680
atttttcccc tctactcaca atactaaagg gaaaaaatgg attcaaagct aggatttcag
1740
ggcccagcag tgttctctcca tcagcatggt agacaactac acagtatggt gttagttttg
1800
aaagacattc actcaaggaa aacaccatct caactttgcc cgtcaccat gtccccctggc
1860
ccccgtagc ccatttccca gggttatgctc tttttttctc cagggctccc tttggtgggc
1920
agccaactcc cgagatggtt ccatcagttt tctgcagtc aaagagggtg tggttaggta
1980
cgggtcttcc tgccctatc ctctctctct ttgtgtagggt ttcagccaca aaactgtcat
2040
tcactctagg ggacccctac taaagggtaa cttcagggtg gcagccctga gtccaaggc
2100
tctgcacat gccacacact tgctgtaagg ctagaagtga agaccttatt aataggagca
2160
taattgcgag ggagaatcat ggttctgcag tctggtgtag aacttggaat aacagcacag
2220
aaaaatctat gactcccaat atcttctaga ataaagaatt ttccctcttt aacacaaggg
2280
ccctccttgt cattgacctt agctaaacca tggcaattca taaatagagg aacattaat
2340
gaattaaaag cattctcttat tttttaacta atattgtac attttcttag tctctttcca
2400
agtctttgcc tctttttttt ctttattttt attttttcct ttgacagatg gtatcccttc
2460
ctggatcatt catttccact tgggtttctaa ctttaggttt accttcaatt gttatttgac
2520
ttagcaggtg caacaaaaac aagaaacaaa tgtgccacc ccactttccg cttaactgaa
2580
aagcttaaaa taaattttctg aattatgtat cctgaagctt tgaaatttct ttattaatcg
2640
atgaaatatg aattctaaat tctagcattg aagcttttca ccaaagaag tctctccaaa
2700
ataaatcttt tgcagcaaa tgatatttat tgagtattgt ggaaaagatg gctgtatttt
2760
ttcagattat tacaacacac tgtgcagaat tagacagatg ttccgtgggtg tttggtttcc
2820
ctttctcttc tctctgctc actctgcatt atagcagcag ctattttctc taaggctgga
2880
cagcctggct ctggcagtg acgtccctccc acacctggtc acaagtagta gtggctgtgc
2940
tataccagc atcatgctta acagcgtggt gccctttctga gccctgttga ctactgatc
3000
tctttaaaaa caaaaaatag ctcttgtaaa aggtcacaaat aactctatgc acctgatact
3060
gcagtgggtc ctaggccatt ctctatctgc tctggacatc tcagtcatac ccaatgctca
3120
gtggatcatg accaaactcc tgtcatgtgg atgcacgtga gtgggtagca gggagtcagg
3180
atcctgcctt ctccagcaac cccttactgc tgtataaact gcataagcct ccctgggtgac
3240

tcttgaggga accactccat tgcctccag ctccccagcc ttctcagtta taaacatgct
 3300
 ggccagatct cttagcctgc aaagagaact ttccccagtc accatagacc attctccttc
 3360
 ctgaaggctt ggggcagacc attcgtttat ttgagaaga gctatacatt cttctttctg
 3420
 gtcccatctt aaacgtcttc tgttgctgct caccctcagat ggtgtctcag atgctttggg
 3480
 gaatctttaa cagctgaatt tgagtcagtc ctcttaggct gcacctccag cctctgcaga
 3540
 tccccctca ttcccatgg atggtgggac cccattattc tctcatctcg gcattcaggg
 3600
 aacagtcttc ttagcggccc ctggtcacat gtcctcgggc tgggcaggaa gcgtccctgg
 3660
 gtgcgtgctc cacttctccc tctcaggaag ccagtttcca tccttagtac cccccctgt
 3720
 gcccgctgct ggctggttat agcacttcca ctgctactgt cagataggaa gtgatcgaag
 3780
 cagggggcaa agagaaagcc catatttggt ctaagcagaa aagcaggaaa aaaaaaaaaa
 3840
 aagaaagaaa aacacctggt gacctgagag aagtaaatc cagaagggaa ccaagaactc
 3900
 ttcccttccc tgggtgagtat ttccattatt ccgttaagggt ttaatatgca ttcagattac
 3960
 ttttactaaa taggacacca taaagctttt gttatatatt aaatgtaaac tgaagggaat
 4020
 gtaaacatat gtattgttaa ttataaatat agataagtaa tgacataata gatgaaaaag
 4080
 tcttattcag atgtatcaca ttcatcttac attaccacc tattgtcgca tggtagaata
 4140
 gtttttctgc tctgaatatg tgaataactt gacttgcatt gatcttttta catatttaat
 4200
 aaaaaaaaaa gtatatgtta aaaaaaaaaa aaaaaaaaaa a
 4241

<210> 5736

<211> 327

<212> PRT

<213> Homo sapiens

<400> 5736

Met	Pro	Gly	Pro	Thr	Gln	Thr	Leu	Ser	Pro	Asn	Gly	Glu	Asn	Asn	Asn
1			5					10					15		
Asp	Ile	Ile	Gln	Asp	Asn	Asn	Gly	Thr	Ile	Ile	Pro	Phe	Arg	Lys	His
			20					25					30		
Thr	Val	Arg	Gly	Glu	Arg	Ser	Tyr	Ser	Trp	Gly	Met	Ala	Val	Asn	Val
			35				40					45			
Tyr	Ser	Thr	Ser	Ile	Thr	Gln	Glu	Thr	Met	Ser	Arg	His	Asp	Ile	Ile
			50			55					60				
Ala	Trp	Val	Asn	Asp	Ile	Val	Ser	Leu	Asn	Tyr	Thr	Lys	Val	Glu	Gln
65				70					75					80	
Leu	Cys	Ser	Gly	Ala	Ala	Tyr	Cys	Gln	Phe	Met	Asp	Met	Leu	Phe	Pro
				85				90						95	
Gly	Cys	Ile	Ser	Leu	Lys	Lys	Val	Lys	Phe	Gln	Ala	Lys	Leu	Glu	His

```

      100              105              110
Glu Tyr Ile His Asn Phe Lys Leu Leu Gln Ala Ser Phe Lys Arg Met
      115              120              125
Asn Val Asp Lys Val Ile Pro Val Glu Lys Leu Val Lys Gly Arg Phe
      130              135              140
Gln Asp Asn Leu Asp Phe Ile Gln Trp Phe Lys Lys Phe Tyr Asp Ala
      145              150              155
Asn Tyr Asp Gly Lys Glu Tyr Asp Pro Val Glu Ala Arg Gln Gly Gln
      160              165              170
Asp Ala Ile Pro Pro Pro Asp Pro Gly Glu Gln Ile Phe Asn Leu Pro
      175              180              185
Lys Lys Ser His His Ala Asn Ser Pro Thr Ala Gly Ala Lys Ser
      190              195              200
Ser Pro Ala Ala Lys Pro Gly Ser Thr Pro Ser Arg Pro Ser Ser Ala
      205              210              215
Lys Arg Ala Ser Ser Ser Gly Ser Ala Ser Lys Ser Asp Lys Asp Leu
      220              225              230
Glu Thr Gln Val Ile Gln Leu Asn Glu Gln Val His Ser Leu Lys Leu
      235              240              245
Ala Leu Glu Gly Val Glu Lys Glu Arg Asp Phe Tyr Phe Gly Lys Leu
      250              255              260
Arg Glu Ile Glu Leu Leu Cys Gln Glu His Gly Gln Glu Asn Asp Asp
      265              270              275
Leu Val Gln Arg Leu Met Asp Ile Leu Tyr Ala Ser Glu Glu His Glu
      280              285              290
Gly His Thr Glu Glu Pro Glu Ala Glu Glu Gln Ala His Glu Gln Gln
      295              300              305
Pro Pro Gln Gln Glu Glu Tyr
      310              315              320
      325

```

<210> 5737

<211> 340

<212> DNA

<213> Homo sapiens

<400> 5737

```

ncaccccccc tggatgtggc tcttcggata tgcctttccc acggagccca gagacaaatg
60
tgcggtggccc tgggacagct ggaccggcct ccagacctcg cccatgacgg gaggagtctg
120
tggtctgaaca tcaggggcaa ggaggcggct gcccaatcca tgttccatgt ctccacggca
180
ctgccagtga tgaccgggtgg ttctctgatg tacctgagag ggcagctgga gcctcagtg
240
aagatgttgc agtgccatcc teacctggtg gcttgaaatc ggccaagggtg ggagcattta
300
caccgcagaa atgacaccgc acgccagcgc cccgcggcgc
340

```

<210> 5738

<211> 99

<212> PRT

<213> Homo sapiens

<400> 5738

```

Met Leu Pro Pro Trp Pro Ile Ser Ser His Gln Val Arg Met Ala Leu
 1           5           10          15
Gln His Leu Pro Leu Arg Leu Gln Leu Pro Ser Gln Val His Gln Glu
 20          25          30
Thr Thr Gly His His Trp Gln Trp Arg Gly Asp Met Glu His Gly Leu
 35          40          45
Gly Ser Arg Leu Leu Ala Pro Asp Val Gln Pro Gln Thr Pro Pro Val
 50          55          60
Met Gly Glu Val Trp Arg Pro Val Gln Leu Ser Gln Gly His Ala His
 65          70          75          80
Leu Ser Leu Gly Ser Val Gly Lys Ala Tyr Pro Lys Ser His Ile Gln
 85          90          95
Gly Gly Xaa

```

<210> 5739

<211> 780

<212> DNA

<213> Homo sapiens

<400> 5739

```

actttcataa ttgtaacatt gaaatcttta atctggaata tgtactggca taaagagtga
 60
ggcacatata tggcctttact attttccaga gggccaactg cttttactga ataattccatt
 120
ttactcgtta attggaaca cctctagcct gtactaaatt tccatattta tttggcccggt
 180
ttcaaaagtcc tctattctct gctcatctgt ccacatctaa gtgctttaac tattgtggct
 240
ttataaaata ttccaatata ccataggacc ttatccttag tacttcctat tttaaagttt
 300
tccttgacaga caggtacttt aaataccatc tcacagcacc catcatgtcc tatcttcagg
 360
aaataaaatc tctgggtatt tccaaggga gtaggaagct gacaccatga ttagaagaca
 420
gagccagcac catggcccggt ccctgagcat gtcacgaaa ccctgccagg ctctgcagct
 480
cctgagcacc ctgccttcgg gtctgccagt gtgtgggggc cagaagagaa aaacaaccca
 540
gggggaatgc ctccctcccc cagcaggaaa gcagcttggt catcatctgt ctgaagagag
 600
gtgctgcagc agctggcaac aaagccactc tgaaggagc tgtgtgcact gcctgtctgg
 660
aagcccatgc cagagtcacat cggtgcctcc accctacctg tgcaggaaac ctggacatca
 720
ccacttcaag gccctacctt cctttctggg cagagcccaa ccacaataaa caggagcggt
 780

```

<210> 5740

<211> 120

<212> PRT

<213> Homo sapiens

<400> 5740

```

Met Ile Arg Lys Gln Ser Gln His His Gly Pro Ser Leu Ser Met Ser
 1           5           10           15
Ser Lys Pro Cys Gln Ala Leu Gln Leu Ser Thr Leu Pro Ser Gly
 20           25           30
Leu Pro Val Cys Gly Gly Gln Lys Arg Lys Thr Thr Gln Gly Glu Cys
 35           40           45
Leu Leu Pro Pro Ala Gly Lys Gln Leu Gly His His Leu Ser Glu Ser
 50           55           60
Arg Cys Cys Ser Ser Trp Gln Gln Ser His Ser Glu Arg Ser Cys Val
 65           70           75           80
His Cys Leu Ser Gly Arg Pro Cys Gln Ser Pro Ser Leu Pro Pro Pro
 85           90           95
Tyr Leu Cys Arg Lys Pro Gly His His His Phe Lys Ala Leu Pro Ser
100           105           110
Phe Leu Gly Arg Ala Gln Pro Gln
115           120

```

<210> 5741

<211> 2444

<212> DNA

<213> Homo sapiens

<400> 5741

```

ggcgggtgct gctccgggcc tgggcacagc aagcggcgac gtcaagctcc cggggttggc
60
gcggttgccg ggggcagtcc cgagcgtgag gaggtcggcg caggctacaa cagtggaggc
120
gagtaggagg cggctgcagc acgcatcgag gctatggacc ctgccactgt cgagcagcag
180
gagcattggt ttgaaaaggc cctacgagac aagaagggct tcatcatcaa gcagatgaag
240
gaggtagggc cctgtctctt ccgggctgta gctgaccagg tgtatggaga ccaggacatg
300
catgaggttg tgcgaaagca ttgcatggac tatctgatga agaatgccga ctacttctcc
360
aactatgtca cagaggactt taccacctac attaacagga agcggaaaaa caattgccat
420
ggcaaccaca ttgagatgca ggccatggca gagatgtaca accgtcctgt ggaggtgtac
480
cagtacagca cagaacccat caacacattc catggggatac atcaaaacga ggacgaaccc
540
attcgtgtta gctaccatcg gaatatccac tataattcag tggatgaatc taacaaggcc
600
accattggtg tggggctggg cctgccatca ttcaaacagg ggtttgcaga gcagtctctg
660
atgaagaatg ccataaaaac atcggaggag tcattggattg aacagcagat gctagaagac
720
aagaaacggg ccacagactg ggaggccaca aatgaagcca tcgaggagca ggtggctcgg
780
gaatcctacc tgcagtgtgt gcgggatcag gagaacagg ctcgccaggt ccgaggcccc
840
agccagcccc ggaaagccag cgccacatgc agttcggcca cagcagcagc ctccagtggc
900

```

ctggaggagt ggactagcgg gtcccccggg cagcggagtt cagcctcgtc acctgagcac
960
cctgagctgc atgctgaatt gggcatgaag ccccccctcc caggcactgt tttagctctt
1020
gccaaacctc cttcgccctg tgcgccaggt acaagcagtc agttctcggc agggggccgac
1080
cggggcaact ccccccttgt gtccctctac cctgctttgg agtgccgggc cctcattcag
1140
cagatgtccc cctctgcctt tgggtctgaat gactgggatg atgatgagat ccttagcttcg
1200
gtgctggcag tgteccaaca ggaataccta gacagtatga agaaaaacaa agtgccacaga
1260
gacccgcccc cagacaagag ttgatggaga cccagggtat ggacaccatc tcccaacccc
1320
agtactcctg ctctccggtg ccaectcacc ttctttggct tcttcccttc tgcctccttc
1380
tgttttttct gctctccctt cttttccctc ctccctcactt cctctgggt agcccccccc
1440
tgcatctctt ctcatggcgg ctgccactat cacctgtctc tctgccagct gatgtgccct
1500
gttggccccc accccatccc gcacagaacc atccctgcac tccacagggg actcggggcaa
1560
gggtgcccga gatagacaag aggcacacag agacagacca actggcagcc aggcagcccc
1620
agaggagaga gacattcaga cagaggaaag tctccctgcc cctcattcct tccaagtga
1680
gaaaaaactg cggccacccc ccgacactga tgccagggag gtgggaggaa gaagtgggaa
1740
atttcccttc ccagtacccc caagaacgtc tgagccttca atgttgaatt ttttctttat
1800
taaaattact ttatctttat aaaatcaact aatcaaaaa gatatagacg acagcactgg
1860
ctctgtgaag gtggcatctt tctgggcagg caggccatgg ggcattggagg aggggtgcaaa
1920
gatatgggtt gctgtcttct ggcctccagc tgcattggag ccggcccagg gtctagggtg
1980
tgcatctggc aagggcaggg cggcaggtgt caggccggct tggacaatga aacctgacc
2040
ttgctgcatt ccttttgctt ccaccaccac tagcttcttt ggaatcttgg ggtgggggtc
2100
atctttgggg attatggctg ccaccggga tttgagtga gggagtgtgg gagcagcctt
2160
ggcagatggg gaacccgtgc cctgcaggtg ttgacaagat ccgccatctg taatgtcctt
2220
ggcacaataa aaccaaagt cagtttccct gagcgactct gttctgtgtg gggcaggggt
2280
tgggcgggcc tctgggcaga ggaatgcaat gcacggacct tggcttgacc tcagagggtg
2340
gaatgctctc cagcagggtc tgtctggggg cctggagttt gtatttgatt tgctgcttat
2400
taaacctcct tctggaccta ttgccactgg aaaaaaaaaa aaaa
2444

<210> 5742

<211> 427

<212> PRT

<213> Homo sapiens

<400> 5742

```

Gly Gly Cys Cys Ser Gly Pro Gly His Ser Lys Arg Arg Arg Gln Ala
 1          5          10          15
Pro Gly Val Gly Ala Val Gly Gly Gly Ser Pro Glu Arg Glu Glu Val
 20          25          30
Gly Ala Gly Tyr Asn Ser Glu Asp Glu Tyr Glu Ala Ala Ala Arg
 35          40          45
Ile Glu Ala Met Asp Pro Ala Thr Val Glu Gln Gln Glu His Trp Phe
 50          55          60
Glu Lys Ala Leu Arg Asp Lys Lys Gly Phe Ile Ile Lys Gln Met Lys
 65          70          75
Glu Asp Gly Ala Cys Leu Phe Arg Ala Val Ala Asp Gln Val Tyr Gly
 85          90          95
Asp Gln Asp Met His Glu Val Val Arg Lys His Cys Met Asp Tyr Leu
100          105          110
Met Lys Asn Ala Asp Tyr Phe Ser Asn Tyr Val Thr Glu Asp Phe Thr
115          120          125
Thr Tyr Ile Asn Arg Lys Arg Lys Asn Asn Cys His Gly Asn His Ile
130          135          140
Glu Met Gln Ala Met Ala Glu Met Tyr Asn Arg Pro Val Glu Val Tyr
145          150          155
Gln Tyr Ser Thr Glu Pro Ile Asn Thr Phe His Gly Ile His Gln Asn
165          170          175
Glu Asp Glu Pro Ile Arg Val Ser Tyr His Arg Asn Ile His Tyr Asn
180          185          190
Ser Val Val Asn Pro Asn Lys Ala Thr Ile Gly Val Gly Leu Gly Leu
195          200          205
Pro Ser Phe Lys Pro Gly Phe Ala Glu Gln Ser Leu Met Lys Asn Ala
210          215          220
Ile Lys Thr Ser Glu Glu Ser Trp Ile Glu Gln Gln Met Leu Glu Asp
225          230          235
Lys Lys Arg Ala Thr Asp Trp Glu Ala Thr Asn Glu Ala Ile Glu Glu
245          250          255
Gln Val Ala Arg Glu Ser Tyr Leu Gln Trp Leu Arg Asp Gln Glu Lys
260          265          270
Gln Ala Arg Gln Val Arg Gly Pro Ser Gln Pro Arg Lys Ala Ser Ala
275          280          285
Thr Cys Ser Ser Ala Thr Ala Ala Ala Ser Ser Gly Leu Glu Glu Trp
290          295          300
Thr Ser Arg Ser Pro Arg Gln Arg Ser Ser Ala Ser Ser Pro Glu His
305          310          315
Pro Glu Leu His Ala Glu Leu Gly Met Lys Pro Pro Ser Pro Gly Thr
325          330          335
Val Leu Ala Leu Ala Lys Pro Pro Ser Pro Cys Ala Pro Gly Thr Ser
340          345          350
Ser Gln Phe Ser Ala Gly Ala Asp Arg Ala Thr Ser Pro Leu Val Ser
355          360          365
Leu Tyr Pro Ala Leu Glu Cys Arg Ala Leu Ile Gln Gln Met Ser Pro
370          375          380
Ser Ala Phe Gly Leu Asn Asp Trp Asp Asp Asp Glu Ile Leu Ala Ser

```

```

385              390              395              400
Val Leu Ala Val Ser Gln Gln Glu Tyr Leu Asp Ser Met Lys Lys Asn
              405              410              415
Lys Val His Arg Asp Pro Pro Pro Asp Lys Ser
              420              425

<210> 5743
<211> 550
<212> DNA
<213> Homo sapiens

<400> 5743
nngcgccaga ctcatttgcc ccgcaggtag atcttggggg tctgccagcc cttcgggggc
60
ttcctttagc cccgccttca gccagatgcg cctcagggtc ttctcgaact tgatctgctt
120
gcgtctcagg cgteccctct ggaccttccc ctatctggct gggcggacac tggtaggatt
180
gcggtggagc caccatgtct gcggtcccg tatccagtct gggcaggaag cagcggggcg
240
tgagccagct ctccaggggg ctgacggaca tcttccctgg gaccagcatc tcctccagct
300
ccagctgggc ccccttgcca gggagagagg ccgcccctacc tgggcgggcc ggcagtgtgc
360
tgtaaagggg ccgcagacc cggctgcccc actccagaga cgggccaagg cgggcgggcc
420
ccgaaaggtc ccagaacggg gaggccggcc cctccccgg gtccaccccc gcgcgaatcg
480
cgttgccttg cgcccnngga ccctctcgcc tggaccccg gcccgccctgc cgcagcgccc
540
ggcgccctca
550

<210> 5744
<211> 95
<212> PRT
<213> Homo sapiens

<400> 5744
Arg Thr Ser Ser Trp Gly Pro Ala Ser Pro Pro Ala Pro Ala Gly Pro
1      5      10      15
Pro Cys Glu Gly Glu Arg Pro Pro Tyr Leu Gly Arg Pro Ala Met Cys
20     25     30
Cys Lys Gly Ala Arg Arg Pro Gly Cys Pro Thr Pro Glu Thr Gly Gln
35     40     45
Gly Gly Arg Pro Pro Lys Gly Pro Arg Thr Gly Arg Pro Ala Pro Ser
50     55     60
Pro Gly Ser Pro Pro Arg Glu Ser Arg Cys Leu Ala Pro Xaa Asp Pro
65     70     75     80
Leu Gly Trp Thr Pro Gly Pro Pro Ala Ala Pro Gly Ala Leu
85     90     95

<210> 5745
<211> 849

```

<212> DNA

<213> Homo sapiens

<400> 5745

aaagtttttt tttttttctg cttcaggcac acggggaacc acgcgtttta atcaacgtat
 60
 cgataaaaaa caccaggggca cggacactcc aggggaaatg cttattgagt aaagtatccg
 120
 aggaagtgat gcagggcagg taaacagctg gtgctcagca gcgagaggac gcgtcactct
 180
 gccgtttctg aggggtgacgc cctccccgta cctcgtgag agccacctgc agacacagca
 240
 ggccacagca gaatgcacag gtcactgttg taggggaaca aatcgtaatg cccagagaaa
 300
 acctgatagt gaaatgtaaa cagacaggac aggggtgggtc cagggtggcca ccaccgccag
 360
 gcccttcccg tgattgatct gagagcttca cagccggcgg cactgggacc catttccaga
 420
 aacactggaa caccagggtct ctcagatgcc cgcgggaggg gccccaggga ggcctttctc
 480
 agcatcagct tttgggtgac aaacccata cagcaaaact gtacaaatac acacaacgga
 540
 cccccagctg acagtgcagc caggacccta ggaaggtcag gtggtggtga agtcaccccc
 600
 tctccaaccg agcagagcct ggggttgggc tctgatgacc tcccgggcaa agtgtccagg
 660
 tggaggaagc aaactcccaa atggggcaca aaggaataaa aaagcagctg agagattgag
 720
 ggatggggtc gggggcactt ggccgacacc ttctgcctcg cctggccggg ccggggccagc
 780
 ctctgccac aggatggagg gtgactgtgc accctgctcc atgtacagga cgggttgagg
 840
 gtcccatgg
 849

<210> 5746

<211> 140

<212> PRT

<213> Homo sapiens

<400> 5746

Met Thr Ser Pro Pro Asp Leu Pro Arg Val Leu Val Ser Leu Ser
 1 5 10 15
 Ala Gly Gly Pro Leu Cys Val Phe Val Gln Phe Cys Cys Met Gly Phe
 20 25 30
 Val Thr Gln Lys Leu Met Leu Arg Lys Ala Ser Leu Gly Pro Leu Pro
 35 40 45
 Arg Ala Ser Glu Arg Pro Gly Val Pro Val Phe Leu Glu Met Gly Pro
 50 55 60
 Ser Ala Ala Gly Cys Glu Ala Leu Arg Ser Ile Thr Gly Arg Ala Trp
 65 70 75 80
 Arg Trp Trp Pro Pro Gly Thr Thr Leu Ser Cys Leu Phe Thr Phe His
 85 90 95
 Tyr Gln Val Phe Ser Gly His Tyr Asp Leu Phe Pro Tyr Asn Ser Asp

	100		105		110
Leu	Cys	Ile	Leu	Leu	Trp
	115		120		125
Gly	Thr	Gly	Arg	Ala	Ser
130		135		140	

<210> 5747

<211> 1999

<212> DNA

<213> Homo sapiens

<400> 5747

```

nccatggccc agtcggcgcg ggaggtcggg cccggggccc agacggcggt gcagatccgc
60
gtcgccatcc aggaggccga ggacgtggac gagttggagg acgaggagga gggggcggag
120
actcggggcg cccggggacc gccccggtag ctacagcccc gctggggcag cgcgagcgag
180
gaggagccga gccgcgggca cagtggcacc actgcaagtg gaggtgagaa cgagcgtgag
240
gacctggagc aggagtgga gccccgggat gaggagtga tcaagaaact ggtggatcag
300
atcgaaattct acttttctga tgaaaacctg gagaaggacg cttttttgct aaaaacgctg
360
aggaggaaca agctgggata tgtgagcgtt aagctactca catcctcaa aaagggtgaa
420
catcttacac gggactggag aaccacagca catgctttga agtattcagt ggtccttgag
480
ttgaatgagg accaccgaa ggtgaggagg accacccccc tccactgtt cccaacgag
540
aacctcccca gcaagatgct cctggtctat gatctctact tgtctcctaa gctgtgggct
600
ctggccaccc ccagaaagaa tgggaagggt caagagaagg tgatggaaca cctgctcaag
660
cttttcggga cttttggagt catctcatca gtgcggatcc tcaaacctgg gagagagctg
720
ccccctgaca tcggagggat cagcagccgc tacagccaag tggggaccca ggagtggtcc
780
atcgtggagt tcgaggaggt ggaagcagcc atcaaaagccc atgagttcat gatcacagaa
840
tctcagggca aagagaacat gaaagctgtc ctgattggta tgaagccacc aaaaagaaa
900
cctgccaaag acaaaaatca tgacgaggag cccactgcga gcatccacct gaacaagtcc
960
ctgaacaaga gactcgagga gcttcagtag atgggtgatg agtcttctgc caacagctcc
1020
tgtgaccccg agagcaaccc cactccccct atggcgggcc gacggcacgc gggcaccaac
1080
aagctcagcc cgtctggcca ccagaatctc tttctgagtc caaatgcctc cccgtgcaca
1140
agtccttgga gcagcccctt ggcccaacgc aaaggcgttt ccagaaagtc cccactggcg
1200
gaggaaggta gactgaactg cagcaccagc cctgagatct tccgcaagtg tatggattat
1260

```

tcctctgaca gcagcgtcac tccctctggc agccccctggg tcgggaggcg tcgccaagcc
 1320
 gagatgggga cccaggagaa aagccccggt acgagtcctcc tgctctcccg gaagatgcag
 1380
 actgcagatg ggcctaccgt aggggtgctg aggttgccca ggggtcctga caacaccaga
 1440
 ggatttcattg gccatgagag gagcagggcc tgtgtataaa tacctttctat ttttaataca
 1500
 agctccactg aaaaccacct tcgttttcaa ggttctgaca aacacctggc atgacagaat
 1560
 ggaattcggt cccctttgag agatttttta ttcattgtaga cctcttaatt tatctatctg
 1620
 taatatacat aaatcggtac gccatgggtt gaagaccacc ttctagtcca ggactcctgt
 1680
 tcttcccagc atggccacta ttttgatgat ggctgatgtg tgtgagtgtg atggccctga
 1740
 agggctgtag gacggaggtt ccctggggga agtctgttct ttggtatgga atttttctct
 1800
 ctcttttggt atggaatttt tcccttcagt gactgagctg tccctcgatag gccatgcaag
 1860
 ggcttcctga gagttcagga aagtctctct gtgcaacagc aagttagctaa gcctatatga
 1920
 tgggtgtctg taggacacaa tcgatgttac ctgtcaagta aataaataat aaaacaccca
 1980
 aaaaaaaaaa aaaaaaaaaa
 1999

<210> 5748

<211> 492

<212> PRT

<213> Homo sapiens

<400> 5748

Xaa	Met	Ala	Gln	Ser	Gly	Gly	Glu	Ala	Arg	Pro	Gly	Pro	Lys	Thr	Ala
1				5					10					15	
Val	Gln	Ile	Arg	Val	Ala	Ile	Gln	Glu	Ala	Glu	Asp	Val	Asp	Glu	Leu
			20					25					30		
Glu	Asp	Glu	Glu	Glu	Gly	Ala	Glu	Thr	Arg	Gly	Ala	Gly	Asp	Pro	Ala
			35				40						45		
Arg	Tyr	Leu	Ser	Pro	Gly	Trp	Gly	Ser	Ala	Ser	Glu	Glu	Glu	Pro	Ser
			50			55					60				
Arg	Gly	His	Ser	Gly	Thr	Thr	Ala	Ser	Gly	Gly	Glu	Asn	Glu	Arg	Glu
65					70					75				80	
Asp	Leu	Glu	Gln	Glu	Trp	Lys	Pro	Pro	Asp	Glu	Glu	Leu	Ile	Lys	Lys
			85						90					95	
Leu	Val	Asp	Gln	Ile	Glu	Phe	Tyr	Phe	Ser	Asp	Glu	Asn	Leu	Glu	Lys
			100					105					110		
Asp	Ala	Phe	Leu	Leu	Lys	His	Val	Arg	Arg	Asn	Lys	Leu	Gly	Tyr	Val
			115			120						125			
Ser	Val	Lys	Leu	Leu	Thr	Ser	Phe	Lys	Lys	Val	Lys	His	Leu	Thr	Arg
			130			135					140				
Asp	Trp	Arg	Thr	Thr	Ala	His	Ala	Leu	Lys	Tyr	Ser	Val	Val	Leu	Glu
145					150					155				160	
Leu	Asn	Glu	Asp	His	Arg	Lys	Val	Arg	Arg	Thr	Thr	Pro	Val	Pro	Leu

```

165          170          175
Phe Pro Asn Glu Asn Leu Pro Ser Lys Met Leu Leu Val Tyr Asp Leu
180          185          190
Tyr Leu Ser Pro Lys Leu Trp Ala Leu Ala Thr Pro Gln Lys Asn Gly
195          200          205
Arg Val Gln Glu Lys Val Met Glu His Leu Leu Lys Leu Phe Gly Thr
210          215          220
Phe Gly Val Ile Ser Ser Val Arg Ile Leu Lys Pro Gly Arg Glu Leu
225          230          235
Pro Pro Asp Ile Arg Arg Ile Ser Ser Arg Tyr Ser Gln Val Gly Thr
245          250          255
Gln Glu Cys Ala Ile Val Glu Phe Glu Glu Val Glu Ala Ala Ile Lys
260          265          270
Ala His Glu Phe Met Ile Thr Glu Ser Gln Gly Lys Glu Asn Met Lys
275          280          285
Ala Val Leu Ile Gly Met Lys Pro Pro Lys Lys Lys Pro Ala Lys Asp
290          295          300
Lys Asn His Asp Glu Glu Pro Thr Ala Ser Ile His Leu Asn Lys Ser
305          310          315
Leu Asn Lys Arg Val Glu Glu Leu Gln Tyr Met Gly Asp Glu Ser Ser
325          330          335
Ala Asn Ser Ser Ser Asp Pro Glu Ser Asn Pro Thr Ser Pro Met Ala
340          345          350
Gly Arg Arg His Ala Ala Thr Asn Lys Leu Ser Pro Ser Gly His Gln
355          360          365
Asn Leu Phe Leu Ser Pro Asn Ala Ser Pro Cys Thr Ser Pro Trp Ser
370          375          380
Ser Pro Leu Ala Gln Arg Lys Gly Val Ser Arg Lys Ser Pro Leu Ala
385          390          395
Glu Glu Gly Arg Leu Asn Cys Ser Thr Ser Pro Glu Ile Phe Arg Lys
405          410          415
Cys Met Asp Tyr Ser Ser Asp Ser Ser Val Thr Pro Ser Gly Ser Pro
420          425          430
Trp Val Arg Arg Arg Arg Gln Ala Glu Met Gly Thr Gln Glu Lys Ser
435          440          445
Pro Gly Thr Ser Pro Leu Leu Ser Arg Lys Met Gln Thr Ala Asp Gly
450          455          460
Leu Pro Val Gly Val Leu Arg Leu Pro Arg Gly Pro Asp Asn Thr Arg
465          470          475
Gly Phe His Gly His Glu Arg Ser Arg Ala Cys Val
485          490

```

<210> 5749

<211> 2849

<212> DNA

<213> Homo sapiens

<400> 5749

```

gggtgagacg gtgggttgta tggagagaat gtgactgtac atttttataa gcaggactaa
60
cccaggaaag aggaaaaaat acatttaaca gtgaagaggc aacacagagc tccctattgt
120
gaaataaaac ccatttcaaa agttattgga aagaaagtaa ggtatggctc ttatgggtta
180

```

actagtggta gtcagtttct gctttttact ccctctgaat tattaattgt ttgccagggt
240
cactgggtggg aggctgagcc ggtggaaaag acaccgggaa gagactcaga ggcgaccata
300
atgtcgttac gtgtacacac tctgccacc ctgcttggag cgtcgtcag accggggtgc
360
agggagctct gctgttttct gatgatcaca gtgactgttg gcccttggct ctctgggggtg
420
tgccccaccg ctgtcatctg tgccactgac atcgtcagct gcaccaacaa aaacctgtcc
480
aagggtcctg ggaacctttt cagactgatt aagagactgg acctgagtta taacagaatt
540
gggcttcttg attctgagtg gattccagta tctgttgcaa agctgaacac cctaattctt
600
cgtcataaca acatcaccag catttccacg ggcagttttt ccacaactcc aaatttgaag
660
tgtcttgact tatcgtccaa taagctgaag acggtgaaaa atgctgtatt ccaagagttg
720
aagggtcttg aagtgtctct gctttacaac aatcacatat cctatctcga tccctcagcg
780
tttgaggagg tctccagtt cgagaaactc tacttaagt gaaattttct cacacagttt
840
cogatgtggt tgtatgttgg aaggttcaag ctggcagaac tgatgttttt agatgtttct
900
tataaccgaa ttcttccat gccaatgcac cacataaatt tagtgccagg aaaacagctg
960
agaggcatct accttcatgg aaacccattt gtctgtgact gttccctgta ctcttctgtg
1020
gtcttttgg atcgtaggca ctttagctca gtgatggatt ttaagaacya ttacacctgt
1080
cgctgttgg ctgactccag gcaactcgtt caggtacttc tgctccagga tagctttatg
1140
aattgtctct acagcatcat caatggttcc ttctgtgcgc ttggctttat tcatgaggct
1200
cagggtcggg aaagactgat ggtccactgt gacagcaaga caggtaatcg aaatacggat
1260
ttcatctggg tgggtccaga taacagactg ctagagccgg ataaagagat ggaacacttt
1320
tacgtgttcc acaatggaag tctgggtata gaaagccctc gttttgagga tgctggagtg
1380
tattcttgta tcgcaatgaa taagcaacgc ctgttaaatg aaactgtgga cgtcacataa
1440
aatgtgagca atttactgt aagcagatcc catgctcatg aggcatttaa cacagctttt
1500
accactcttg ctgcttgcgt ggccagtatc gttttggtag ttttgtacct ctatctgact
1560
ccatgccccg gcaagtgtaa aaccaagaga cagaaaaata tgctacacca aagcaatgcc
1620
cattcatcga ttctcagtc tggccccgct agtgatgcct ccgctgatga acggaaggca
1680
ggtgcaggta aaagagtggg gtttttggaa cccctgaagg atactgcagc agggcagaac
1740
gggaaagtca ggctctttcc cagcgaggca gtgatagctg agggcatcct aaagtccacy
1800

agggggaaat ctgactcaga ttcagtcagt ttcagtggtt ctgacacacc ttttgtggcg
 1860
 tccacttaat ttgtgcctat atttgtatga tgcataatt taatctgttc atatttaact
 1920
 ttgtgtgtgg tctgcaaaat aaacagcagg acagaaattg tggtgttttg tcttttgaaa
 1980
 tacaacaaaa tctctctaaa atgattggta ggaatgagg taaagtactt cagtctctca
 2040
 atgtgccata gaaagatggg gttgttttcc aaagtttaag ttctagatca caatatctta
 2100
 gcttttagca ctattggtaa tttcagagta ggcccaaagg tgatagtact ccattgtcc
 2160
 ctttatttag gatattgaaa gaaaaataa actttatgta ttagtgctct ttaaaaatag
 2220
 actttgctaa cttactagta ccagagttat tttaaagaaa aacactagtg tccaatttca
 2280
 tttttaaag atgtagaaag aagaatcaag catcaattaa ttataagcc taaagcaaag
 2340
 ttgatttgg gggttattca gccaaaatta ccgttttaga ccagaatgaa tagactacac
 2400
 tgataaaatg tactggataa tgccacatcc tatatgggtg tatagaaata gtgcaaggaa
 2460
 agtaacattt ttgtcctgtc ttttcatttt gtacattctt ccattctgtt attctgttac
 2520
 aaaagatctc attgaaaatt taaagtcac ataatgtgt gccataaata tgtaagtgtc
 2580
 aatacaaaaa tgtctgagta acttcttaaa tccctgttct agcaaaactaa tattgtgtca
 2640
 tgtgcttggt tatatgtaaa tcttaaaata tgtgaactat taaatagacc ctactgtact
 2700
 gtgctttgga catttgaatt aatgtaata tatgtaatct gtgacttgat attttgtttt
 2760
 atttggttat ttaaaaaacat aaatctaaaa tgtcttatgt tatcagatta tgctattttg
 2820
 tataaagcac cactgatagc aaaaaaaaaa
 2849

<210> 5750

<211> 522

<212> PRT

<213> Homo sapiens

<400> 5750

Met Ser Leu Arg Val His Thr Leu Pro Thr Leu Leu Gly Ala Val Val
 1 5 10 15
 Arg Pro Gly Cys Arg Glu Leu Leu Cys Leu Leu Met Ile Thr Val Thr
 20 25 30
 Val Gly Pro Gly Ala Ser Gly Val Cys Pro Thr Ala Cys Ile Cys Ala
 35 40 45
 Thr Asp Ile Val Ser Cys Thr Asn Lys Asn Leu Ser Lys Val Pro Gly
 50 55 60
 Asn Leu Phe Arg Leu Ile Lys Arg Leu Asp Leu Ser Tyr Asn Arg Ile
 65 70 75 80
 Gly Leu Leu Asp Ser Glu Trp Ile Pro Val Ser Phe Ala Lys Leu Asn

85										90										95									
Thr	Leu	Ile	Leu	Arg	His	Asn	Asn	Asn	Ile	Thr	Ser	Ile	Ser	Thr	Gly	Ser													
100										105										110									
Phe	Ser	Thr	Thr	Pro	Asn	Leu	Lys	Cys	Leu	Asp	Leu	Ser	Ser	Ser	Asn	Lys													
115										120										125									
Leu	Lys	Thr	Val	Lys	Asn	Ala	Val	Phe	Gln	Glu	Leu	Lys	Val	Leu	Glu														
130										135										140									
Val	Leu	Leu	Leu	Tyr	Asn	Asn	His	Ile	Ser	Tyr	Leu	Asp	Pro	Ser	Ala														
145										150										155									
Phe	Gly	Gly	Leu	Ser	Gln	Leu	Gln	Lys	Leu	Tyr	Leu	Ser	Gly	Asn	Phe														
165										170										175									
Leu	Thr	Gln	Phe	Pro	Met	Asp	Leu	Tyr	Val	Gly	Arg	Phe	Lys	Leu	Ala														
180										185										190									
Glu	Leu	Met	Phe	Leu	Asp	Val	Ser	Tyr	Asn	Arg	Ile	Pro	Ser	Met	Pro														
195										200										205									
Met	His	His	Ile	Asn	Leu	Val	Pro	Gly	Lys	Gln	Leu	Arg	Gly	Ile	Tyr														
210										215										220									
Leu	His	Gly	Asn	Pro	Phe	Val	Cys	Asp	Cys	Ser	Leu	Tyr	Ser	Leu	Leu														
225										230																			

515

520

<210> 5751

<211> 926

<212> DNA

<213> Homo sapiens

<400> 5751

ngcgggcatg gccaggcggg gtggcctcgg gccggggcag aggcctggct ccgctgcctg
 60
 acctggaaca gtctctgcct ctctccaagc ctcggtttcc ccagctggac ggtgatgggg
 120
 gtgaggggcta gctgagggct ctctgccctc tcgtgcattc gctggtcact aatcggggcac
 180
 cttgtgggtg ctgtgctccg catgggggac ccagtgggta cagagacgcc caccctcctg
 240
 gggctcccg agcagaggcg cgcagcagtt agacacgtga acaaggggcg aggcattcctg
 300
 gagatccgct ctgtacacgt gggcgctcgt gtcataaaag cagtgtcctc aggcttctac
 360
 gtggccatga accgccgggg ccgcctctac gggctcggac tctacaccgt ggactgcagg
 420
 ttccggggagc gcatacgaaga gaacggccac aacacctacg cctcacagcg ctggcgccgc
 480
 cgcggccagc ccatgttctc ggcgctggac aggagggggg ggcgccggcc aggcggccgg
 540
 acgcggcggt accacctgtc cgcacacttc ctgcccgctc tgggtctcctg aggcctctag
 600
 aggcggcgcg ctccccaagg tgcctgggct ggtggcgagg ggcgccgcca cgcttgttct
 660
 tccccctgcg ggctctgtaa gcgctgagtg cccaccgtgt gggggcgctg tggacacagc
 720
 ccaggagccc tccagggggg tccagccctg aggggggtgt ggccaccaag caggttcaat
 780
 cctgagttgg ggacctcgag gacccaacag ggcgcctctc gggctgaagg acgcagacgt
 840
 cgaagggtcg agggggacgt cccaggcagg gcccggcaga ggcaggggct cggggggggg
 900
 agcacgttgg gagtgggggc aggagc
 926

<210> 5752

<211> 129

<212> PRT

<213> Homo sapiens

<400> 5752

Met Gly Asp Pro Val Val Thr Glu Thr Pro Thr Leu Leu Gly Leu Pro
 1 5 10 15
 Glu Gln Arg Arg Ala Ala Val Arg His Val Asn Lys Gly Ala Gly Ile
 20 25 30
 Leu Glu Ile Arg Ser Val His Val Gly Val Val Val Ile Lys Ala Val
 35 40 45
 Ser Ser Gly Phe Tyr Val Ala Met Asn Arg Arg Gly Arg Leu Tyr Gly

50	55	60
Ser Arg Leu Tyr Thr Val Asp Cys Arg Phe Arg Glu Arg Ile Glu Glu		
65	70	75
Asn Gly His Asn Thr Tyr Ala Ser Gln Arg Trp Arg Arg Arg Gly Gln		80
	85	90
Pro Met Phe Leu Ala Leu Asp Arg Arg Gly Gly Pro Arg Pro Gly Gly		95
	100	105
Arg Thr Arg Arg Tyr His Leu Ser Ala His Phe Leu Pro Val Leu Val		110
	115	120
		125

Ser

<210> 5753

<211> 5668

<212> DNA

<213> Homo sapiens

<400> 5753

nnacoggtag tttgtcttgg ataacagtgt cactcctggca atgctgggaac aacctcttgg
60
aaatgagcag aatgatTTTT tccccctctgt cactgtgctg gtccggggaa tgtctggaa
120
acttgccttg gcacaacagc tttgtctttt acccagagga gcaaaagcaa atcagaagct
180
ttttgtacct gaacctcgcc cagttcctaa aatgacgttg gatttaaata ttctgtgaaa
240
catcgccat ttctgaaga ggtggacaag attccttttg tgaaagcaga tctcagcatt
300
ccagatttgc atgaaatagt cactgaagaa ttagaagaga gacacgaaaa attaaggagt
360
ggcatggccc agcagattgc ttatgaaata cactctgagc aacagagtga ggaggaattg
420
cagaagagaa gttttcctga ccaggttacg gattgcaagc cccgcctctc tgcccaggaa
480
ttccaaacag cccgcctttt tctctcacac ttgggatttt tgtccttaga agcactgaa
540
gaacctgcaa atagtcgtct acctcctcac cttattgcac ttgattccac gatacctgga
600
ttttttgatg acattgggta tctggatctc ttgccatgct gtcccttttga cacagttttt
660
attttctata tgaagccagg tcagaaaacg aaccaagaga ttttaaagaa tgggagtc
720
tccagaactg ttcagccaca ttctctagaa tttttgcttt cccttggtctg gtcagtagat
780
gtgggcagac accctgggtg gactgggcat gttcttacca gttgggtctat taattgtgtg
840
gatgatgttg aaggatctca acaagaagaa gtgatttctc ctgaagatat tggagctagc
900
attttcaatg gacagaagaa ggtgctgtat tatgctgatg cccttacaga aattgctttt
960
gtggttcctt ctctgttggg gtccttaact gattcattgg aaagtaacct ctcggaacaa
1020
gatagtgatt caaatatgga tcttatgcca ggaattctga aacagccatc cctgacactt
1080

gagcttttcc ccaatcatac agacaatctt aattcctcac agaggctcag tcccagttcc
1140
agaatgagga agctgcctca gggcgccctt gtctctcccc ttggacctga gacaagagtt
1200
tctgtagtct gggtggaacg ctatgatgat atagaaaact tccccctctc agagctgatg
1260
acagagatca gtactgggtg ggaactactt gcaaatagta gcaacttact gagatctaca
1320
actcttgaaa aagaagtctc tgtcatcttc atccaccctt taaacactgg attattccgg
1380
ataaaaattc aaggagccac tggaaaattt aatatgggtca tcctcttgtt ggtatgggatg
1440
attgtcagca ggcgagctct tggctttctg gtgaggcaga ctgtaattaa cattttgtaga
1500
agaaagagac tggaaagtga ctctacagt ccccccatg tccgccggaa acagaaaaac
1560
accgacattg tcaacaagta ccggaacaag cagctggagc cagagtttta tacttcaact
1620
ttccaggagg ttggactcaa gaactgcagt tcttagacca ctgaatttct aagactgttg
1680
aactccagtt tgggaactat aacacagcag aacagtttga taggtgatca ctgtaaaaat
1740
aaaaacaaat cactcccaag agcttactgt ttaatcacca gaatagaaga aacacattat
1800
aaaccatttg atagaagact ttgggctatc tagtgaaatg ggctcccaga cacaatcata
1860
ctcctgctga taatgatgat atacatttta gccataaact ttcttttaaa agtgacaatt
1920
ttagttaaac ataagccttt tgaggagaaa ggcttttatg catctcagtt aaacacgtgc
1980
attggttagta tcaacaaatt tgcaatatag aagttgaaga tagtttttta cctcactttt
2040
taggaggttg tattcaaaat taaaatctca gaatcttaca ggacatttaa agactcatgt
2100
tgatagcatg gaggagaagg aaagaagtca cagccttcta ctcagttgta ggtcttcttg
2160
tcattccagct gtcacactga caaaaagaaa agatgatata tgttttttgc tcagataaga
2220
agcctgacat taaaagatgt catatttttt tctccacatt tcaaaaagtt gtcttcttca
2280
tcactgcaca gatctgtctg aaagcctcag tttctgagtg acccaggaaac agatcagaaa
2340
tggagcatgg ccttgctcct taatggggat gcaataaagg tttgtggggg taaaagttat
2400
aagacagcag tgatacccca ctctctccat tattgtccag cggggtgaca taatgacagg
2460
ttaaattatt gtgattcatt gattaaatat tatttaaaga aatgtaaat cacaataagg
2520
gttgaaaatt atttggttcc atccattgtc tcttatttca ggaccaagca gcaaaactgca
2580
gtagtttgtg aaggattcta atatgggggt caggaatagc ctctcaacgc tactaattca
2640
gatctctccc agagaactac tggatttctc cataattgac aaacatgagt gaccacctct
2700

ttgggtggct actgttagaa atggctgttg tcatgttttc tggactttgc cagccaacag
2760
atccctgccca ggTtttgga atacttctat tacctcgctg ctacttttct gcagggataa
2820
aactttttag gtggccagac ccagaacatc caaggattcc tgttacagtg ctacagtata
2880
cactgctcat ttatcctatt ctcatgtgct ttcttcttta gtaagattat ttttaaaaa
2940
taagtgtat ttaaagtcga aagaggaatg atcacagtgt tataaggggt gttttccac
3000
ttgaactctg atgtcagtcg actgtgggtc agagctacaa ccactctgtt ggtttgatgt
3060
tttgggtggt tacttacgga gtggggatag tgtgagacct aattccctgt gcaaattgtc
3120
cttattccag aaatgtgcat ttgtcatctc ataagcaaga aatatgggca tagcagctct
3180
tgggtttaaag ttgcccataa cctgttcctg tttgttttaa gctcaggtaa agataacctc
3240
ctctttctat gactccagtt tccattcagg ttatagtatt attcaatagt tgattttctt
3300
tttaagctgg gcaataaatt gatgtttcca gatggttaaca tgggagaggg catataggat
3360
aaagatgagc aaattctacc ctaaaaatgt tctagtagtt cacaggaaga agatgagggt
3420
taataacttt caaggtaatt ctagattgac attttgaggg gaaaatgggc tctgtttcta
3480
gttgaagtga gcagagaagg ctataaatta atatgtaact tacagcattc cagaggttaa
3540
aaataactga tgcagatgta cttcttcagt gtgattcttc agatcaaaact tttacttttg
3600
gcatagttaa tttcagaaaa atgtgctgta tgtgtgtgtg tatgaggggt ggtcttgctg
3660
atccttcagt tagctctaaa ttctggcaac tccttgtaat tccaatgtat ttgatacatg
3720
aacaatcatg ttgaatgcat ttgtgatctg ggagacttcc tcttcttcca gggaagggaag
3780
gatgtgcagc ccctgaaggc atgaaactcc cagtgtgtac ggagccagtg gaatatggga
3840
taccataacc ttaccaggcg ctggttcctt ctgctcacia taacatctgc ccaaagaggg
3900
agtgggaaga acgcttagct ctttcactag tatggatttg agttcatggt cactattttt
3960
accacactgc ctttgttaa aatcactttg agtagaatag cactggagga acatattag
4020
cacctaata taatathtag tagtccattg ataaatttgc cagcatatgt tctagccctc
4080
ggggggaaac caggaccact tttgtctgtg gcttaaacag ttcagtgtgt atatctgttg
4140
ggtatgccgg ggggtgatga gtgtggcatt ccgtgaagag gaaggtggta agtaaggttt
4200
cccttctact gccttcttaa gttgcaggag ggagcttttc tcctccctc tgggtgggag
4260
cactgaggac agtgaggagg gcttttacct tgttaatcct ttccttattt agctagcttt
4320

cctttttgtc tagggcttcc tcttgagacc ctcttccatc cattgggcct ttgaaaggac
 4380
 taatcagaca cacacacaca cacacacaca cacacacaca cacactcgca tactcatgca
 4440
 cattttcctt catttccaga tcotttattt cagagcagoc cattttcctc tggattcatt
 4500
 gatgaataca agtaccacaca cctttggcca gtaatgtcag ttacctgctg cagggttctgt
 4560
 gtatgaggcc ttcatgaacg gttaccttct ccatacacta gggagacatt tgcacagctc
 4620
 tgcagactgg gttctagaga ggcagagtct ttaagagtat tcattttctc tggaaagggtg
 4680
 agctttaccc aaagtggag ttagccctgc tcaagagatgt gttttgtggt aggtgggttaa
 4740
 aataaataaa taaataaata ataaaaaaag aaacatgtat tggaggtaat ttgacactgc
 4800
 tgcctggcagt agttctctat tcaccatttt aaagccatt cagggttctct ctctcctgaa
 4860
 agaactgatt gctgtgttta catgaaatga cattggagtc agatgggtctg ttttaaagat
 4920
 ttccatgaca ccctcttttc ctgagttgga gagattggag gtggtctatc cgtacgatgt
 4980
 ggaatcaaac ggtgggtttc ttagtagcta aagaagccat gtacttctag tgtgtttctc
 5040
 agaatatcaa ctcatgttct tcagatgctt ttcttttttt aatggtgagg gaaaagggtat
 5100
 aatttgggat tccacagtgc ctgtcatata gtaggcgccc agtaaatact tgttgaagca
 5160
 aaccaagttt cccaagtctt catctcttat agtgaccaag acatctttct cctctgaagg
 5220
 gcttggcagt tgtggctaaa aaataagcag tatcattatt tgcctgaaat catatatata
 5280
 gtttgtatga atttcagtat gttgccaaga catgattttt tcttattgta ttttctgtaa
 5340
 atatttcctg cactgaactg taaagtaaag gcaaatgtta aatatgaagg cgtgccctgt
 5400
 cccttgctct cctgtgtttc atcttcgtcg gttagggaag aaggctccaga ggtttgtttg
 5460
 tttttatgcc gatcttttgt ccagaagaag cccatggaat attgaatgta atacatttag
 5520
 tcaattaaat ttttaaggaga ttcttatcta ataactttgt gtgtgctttt ggatcacaggc
 5580
 tgaggcttta ctctacact ggtgctgtta attttaccct ttcaggggat gtctgctcgg
 5640
 ctttggctgc cctttataat ttagatct
 5680

<210> 5754

<211> 221

<212> PRT

<213> Homo sapiens

<400> 5754

Asp Ser Leu Glu Ser Asn Ile Ser Asp Gln Asp Ser Asp Ser Asn Met

```

1           5           10           15
Asp Leu Met Pro Gly Ile Leu Lys Gln Pro Ser Leu Thr Leu Glu Leu
20           25           30
Phe Pro Asn His Thr Asp Asn Leu Asn Ser Ser Gln Arg Leu Ser Pro
35           40           45
Ser Ser Arg Met Arg Lys Leu Pro Gln Gly Arg Pro Val Pro Pro Leu
50           55           60
Gly Pro Glu Thr Arg Val Ser Val Val Trp Val Glu Arg Tyr Asp Asp
65           70           75           80
Ile Glu Asn Phe Pro Leu Ser Glu Leu Met Thr Glu Ile Ser Thr Gly
85           90           95
Val Glu Thr Thr Ala Asn Ser Ser Thr Ser Leu Arg Ser Thr Leu
100          105          110
Glu Lys Glu Val Pro Val Ile Phe Ile His Pro Leu Asn Thr Gly Leu
115          120          125
Phe Arg Ile Lys Ile Gln Gly Ala Thr Gly Lys Phe Asn Met Val Ile
130          135          140
Pro Leu Val Asp Gly Met Ile Val Ser Arg Arg Ala Leu Gly Phe Leu
145          150          155          160
Val Arg Gln Thr Val Ile Asn Ile Cys Arg Arg Lys Arg Leu Glu Ser
165          170          175
Asp Ser Tyr Ser Pro Pro His Val Arg Arg Lys Gln Lys Ile Thr Asp
180          185          190
Ile Val Asn Lys Tyr Arg Asn Lys Gln Leu Glu Pro Glu Phe Tyr Thr
195          200          205
Ser Leu Phe Gln Glu Val Gly Leu Lys Asn Cys Ser Ser
210          215          220

```

<210> 5755

<211> 1513

<212> DNA

<213> Homo sapiens

<400> 5755

```

nnacgcgtga aggggaacct gtactgcgag gtgtgccccg aggaccggcc cctcatcggt
60
cagttctgtg ccaatgaccc ggaggtgttt gttcaggcgg ctctectggc tcaggattac
120
tgtgaagcca ttgacctgaa ettggtgtgc ccacagatga tagccaagag aggtcactat
180
ggcgcccttc tgcaggacga gtgggacctg ctccaaagaa tgattttgct ggccccagag
240
aaactctctg ttcctgtcac gtgcaaaatc cgtgtcttcc cggagattga caagaccgtg
300
aggtacgccc agatgtctga gaaggccggc tgccagttgc tgacggtgca cggacgcacc
360
aaggagcaga agggggccct gtccgggtgca cgctcctggg agcatatcaa ggctgtgcgg
420
aaggctgtgg ccatccctgt gtttgctaac gggaacatcc agtgectgca ggacgtggag
480
cgctgcctcc gggacacggg tgtgcagggc gtcatgagcg cagagggcaa cctgcacaa
540
cccgccctgt tcgagggcgg gagccctgcc gtgtggggagc tggccgagga gtatctggac
600

```

atcgtgctggg agcacccttg cccctctgtcc tacgtccggg cccacctctt caagctgtgg
 660
 caccacacgc tgcagggtgca ccaggagctg cgagaggagc tggccaaagg gaagaccctg
 720
 gagggcatcg ctgctgtgag ccaggagctg aagctgcggg gtcaggagga gatattccagg
 780
 caggaggagg cgaagccac cggcgacttg cccttccact ggatctgcca gccctacatc
 840
 cggccggggc ccagggaggg gagcaaggag aaggcagggt cgcgcagcaa gcggggccctg
 900
 gaggaagagg aggggtggcac ggaggtcctg tccaagaaca agcaaaagaa gcagctgagg
 960
 aacccccaca agaccttoga cccctctctg aagccaaaat atgcaaaagt tgaccagtgt
 1020
 ggaaacccaa agggcaacag atgtgtgttc agcctgtgcc gcggctgctg caaagaagcga
 1080
 gctccaaaag agactgcaga ctgccagggt caccgattgc tttttaaaac caaattggag
 1140
 aagttcttgg cctggaaaaga ggcccagcct gagctgcagg agcctcagcc agcagcacct
 1200
 ggaaacaccag gtggcttctc cgaagtcagt ggcagtgccc tggcctgaag gccccacaacc
 1260
 cccacccccca ggactgtctg tggagccttg acagctecta cttaagaaaa tgccttttac
 1320
 tcagggaatc tctgtctact taatgtggaa agacacgccc atgtccccct tcggcccact
 1380
 ctggggggcct ggaaatgtct cagtggggag caggccccag gctggacctg ccctgtcttc
 1440
 agcacgcgtg tgcaaaagtg aacaataaat catttcaaag atgaaaaaaa aaaaaaaaaa
 1500
 aaaaagtcga cgc
 1513

<210> 5756

<211> 415

<212> PRT

<213> Homo sapiens

<400> 5756

Xaa Arg Val Lys Gly Asn Leu Tyr Cys Glu Val Cys Pro Glu Asp Arg
 1 5 10 15
 Pro Leu Ile Val Gln Phe Cys Ala Asn Asp Pro Glu Val Phe Val Gln
 20 25 30
 Ala Ala Leu Leu Ala Gln Asp Tyr Cys Asp Ala Ile Asp Leu Asn Leu
 35 40 45
 Gly Cys Pro Gln Met Ile Ala Lys Arg Gly His Tyr Gly Ala Phe Leu
 50 55 60
 Gln Asp Glu Trp Asp Leu Leu Gln Arg Met Ile Leu Leu Ala His Glu
 65 70 75 80
 Lys Leu Ser Val Pro Val Thr Cys Lys Ile Arg Val Phe Pro Glu Ile
 85 90 95
 Asp Lys Thr Val Arg Tyr Ala Gln Met Leu Glu Lys Ala Gly Cys Gln
 100 105 110
 Leu Leu Thr Val His Gly Arg Thr Lys Glu Gln Lys Gly Pro Leu Ser


```

      115              120              125
Gly Ala Ala Ser Trp Glu His Ile Lys Ala Val Arg Lys Ala Val Ala
  130              135              140
Ile Pro Val Phe Ala Asn Gly Asn Ile Gln Cys Leu Gln Asp Val Glu
  145              150              155              160
Arg Cys Leu Arg Asp Thr Gly Val Gln Gly Val Met Ser Ala Glu Gly
      165              170              175
Asn Leu His Asn Pro Ala Leu Phe Glu Gly Arg Ser Pro Ala Val Trp
      180              185              190
Glu Leu Ala Glu Glu Tyr Leu Asp Ile Val Arg Glu His Pro Cys Pro
      195              200              205
Leu Ser Tyr Val Arg Ala His Leu Phe Lys Leu Trp His His Thr Leu
      210              215              220
Gln Val His Gln Glu Leu Arg Glu Glu Leu Ala Lys Val Lys Thr Leu
      225              230              235              240
Glu Gly Ile Ala Ala Val Ser Gln Glu Leu Lys Leu Arg Cys Gln Glu
      245              250              255
Glu Ile Ser Arg Gln Glu Gly Ala Lys Pro Thr Gly Asp Leu Pro Phe
      260              265              270
His Trp Ile Cys Gln Pro Tyr Ile Arg Pro Gly Pro Arg Glu Gly Ser
      275              280              285
Lys Glu Lys Ala Gly Ala Arg Ser Lys Arg Ala Leu Glu Glu Glu
      290              295              300
Gly Gly Thr Glu Val Leu Ser Lys Asn Lys Gln Lys Lys Gln Leu Arg
      305              310              315              320
Asn Pro His Lys Thr Phe Asp Pro Ser Leu Lys Pro Lys Tyr Ala Lys
      325              330              335
Cys Asp Gln Cys Gly Asn Pro Lys Gly Asn Arg Cys Val Phe Ser Leu
      340              345              350
Cys Arg Gly Cys Cys Lys Lys Arg Ala Ser Lys Glu Thr Ala Asp Cys
      355              360              365
Pro Gly His Gly Leu Leu Phe Lys Thr Lys Leu Glu Lys Ser Leu Ala
      370              375              380
Trp Lys Glu Ala Gln Pro Glu Leu Gln Glu Pro Gln Pro Ala Ala Pro
      385              390              395              400
Gly Thr Pro Gly Gly Phe Ser Glu Val Met Gly Ser Ala Leu Ala
      405              410              415

```

<210> 5757

<211> 2362

<212> DNA

<213> Homo sapiens

<400> 5757

```

cagatcacca gcgtttgtag acagtagtgt ggcgcttgga gtttacctga gggccagtgg
60
agctccaggg acctatcagg acgggggaacct gtggggactg ggaaggcctg tggggctgcg
120
tggagcccggt tacttgaggc cgacgggggt gacggggacg ctgaggacac agagccgaggt
180
ggcatgatgg ctgctgggcy tggaggtgtc gagagtgaact gtgctggggc tgctccatcg
240
ttgtctgagc ctcccgtgct tgccgctgtg gccgtttctt tgatgagget ctgagaggcc
300

```

gagtcattca ctgccagcct gaagctgccc atgcgcataat tcgggctgga gcctctgagg
360
ccacacaaac gccggctggg gaggcgaagt gtggggctga gcaccagaac tccaggagcg
420
tctgggctgg agacagaact ggggtggcag gtggggaggg cctgcagatc tgagtgggca
480
gccgaggagg aaccagaag acgccagcga tggagctctg ccggggcgga atgtggccag
540
gagggggcgg agcagtgaac gcctgtccgg cgctagaact agggaccgtg ctctcaggac
600
ctctggatgt tcccagtat cctgatgttc caccagaag ccgccagggc catctggag
660
taccgcattc gcacgctgga cggggccctg gagaacgccc agaaccctgg ctaccaggga
720
gccaaatttg cctgggagag tgcagactcc ggctagagg ttgcccga ggacatttac
780
ggagtccagg aggtccacgt caacggggcc gtggtgttgg ccttcgagct gtactaccat
840
accaccagg acctgcagct atttcgagag ggtggtgggt gggagggtg tagggctgtg
900
gcgaagtttt ggtgcagtcg tgttgagtgg agccccagg aggaaaagta ccacctgagg
960
ggagtcattt ccccgaacga gtaccattca ggggtcaaca actctgtgta caccaacgtc
1020
ctggtccaga acagcctgcg ctttctgctg gccctggccc aggacctggg tcttcccatc
1080
cccagccagt ggctggcggg ggcgtgacaag atcaaggtag cctttgacgt ggagcagaac
1140
ttccacccgg agttcgatgg gtatgagcct ggagagggtg tgaagcaggc agacgtcgtg
1200
ctctgggat acccagtcct cttctccctg agtcctgatg ttcgcaggaa aaatctggag
1260
atttacagg ctgtgacgtc cccccgggc cccgccatga cctggagcat gtttctgtg
1320
ggctggatgg agctgaagga cgcagtgcgg gccgggggccc tcttgagcag gagctttgcc
1380
aacctggctg aacccttcaa ggtgtggacg gagaatgcag acgggtcagg cgctgtgaac
1440
ttctgacag gcatgggggg cttctctgag gcggtggtct tcgggtgcac ggggttcagg
1500
gtcacccgag cgggtgtgac ctttgacctg gtgtgtctgt cggggatctc cagagtgcag
1560
gtctccggca tcttctacca ggggaacaag ctcaacttct ctttttccga ggactccgtg
1620
accgtggagg tcacagctcg agcaggggccc tgggctcctc acctggaggc tgagctgtgg
1680
ccatcccagt cccggctctc cctgttgcca ggacacaagg tctcctttcc ccgctcggct
1740
ggccgggatac aaatgtcacc cccgaagctg cctggaagtt ccagctccga gttccctggg
1800
aggacttttt cagatgttag ggacccgctc cagagccccc tctgggtcac cctgggttcc
1860
tccagcccca ccagtcact cactgtggac cctgcctctg aataatcagg aacgggtggct
1920

tcagagacgt ctcttggggc ttcctctctgg ccaagtctgc acccaccctt cctgggcacc
 1980
 ctcttagctt gccatccctc acctgcagcc aggtctctcag ggaaggtcca tgctgcttgg
 2040
 cctgagttca aggctttctg cctgtagcct ggactccctg ggacccctgt gggcaggttg
 2100
 ctctccctgt gcattctcac accgctcttg cctgcccctg tggactgatg ctatcgcgca
 2160
 cggctccacg accccacccc gagctctctga agccggggtc tgagcctgca tcacctctgg
 2220
 cctctcatcc cccactctcc tgagagcagt ggtcacagcg gccggccctg ctgctgagaa
 2280
 ggagagaggg caggctcagg cctcagcgtg gacagcaggg ataaggggca cgaaggacgg
 2340
 ggactcggcc ccttcagaat tc
 2362

<210> 5758

<211> 440

<212> PRT

<213> Homo sapiens

<400> 5758

Gly	Pro	Cys	Ser	Gln	Asp	Leu	Trp	Met	Phe	Pro	Ser	Ile	Leu	Met	Phe
1				5					10					15	
His	Pro	Glu	Ala	Ala	Arg	Ala	Ile	Leu	Glu	Tyr	Arg	Ile	Arg	Thr	Leu
			20					25					30		
Asp	Gly	Ala	Leu	Glu	Asn	Ala	Gln	Asn	Leu	Gly	Tyr	Gln	Gly	Ala	Lys
			35				40					45			
Phe	Ala	Trp	Glu	Ser	Ala	Asp	Ser	Gly	Leu	Glu	Val	Cys	Pro	Glu	Asp
			50			55					60				
Ile	Tyr	Gly	Val	Gln	Glu	Val	His	Val	Asn	Gly	Ala	Val	Val	Leu	Ala
65					70				75					80	
Phe	Glu	Leu	Tyr	Tyr	His	Thr	Thr	Gln	Asp	Leu	Gln	Leu	Phe	Arg	Glu
				85					90					95	
Gly	Gly	Gly	Trp	Glu	Val	Val	Arg	Ala	Val	Ala	Lys	Phe	Trp	Cys	Ser
			100				105						110		
Arg	Val	Glu	Trp	Ser	Pro	Arg	Glu	Glu	Lys	Tyr	His	Leu	Arg	Gly	Val
			115				120					125			
Met	Ser	Pro	Asp	Glu	Tyr	His	Ser	Gly	Val	Asn	Asn	Ser	Val	Tyr	Thr
			130			135					140				
Asn	Val	Leu	Val	Gln	Asn	Ser	Leu	Arg	Phe	Ala	Ala	Ala	Leu	Ala	Gln
145					150					155				160	
Asp	Leu	Gly	Leu	Pro	Ile	Pro	Ser	Gln	Trp	Leu	Ala	Val	Ala	Asp	Lys
				165						170				175	
Ile	Lys	Val	Pro	Phe	Asp	Val	Glu	Gln	Asn	Phe	His	Pro	Glu	Phe	Asp
			180					185					190		
Gly	Tyr	Glu	Pro	Gly	Glu	Val	Val	Lys	Gln	Ala	Asp	Val	Val	Leu	Leu
			195				200					205			
Gly	Tyr	Pro	Val	Pro	Phe	Ser	Leu	Ser	Pro	Asp	Val	Arg	Arg	Lys	Asn
			210			215					220				
Leu	Glu	Ile	Tyr	Glu	Ala	Val	Thr	Ser	Pro	Gln	Gly	Pro	Ala	Met	Thr
225					230					235				240	
Trp	Ser	Met	Phe	Ala	Val	Gly	Trp	Met	Glu	Leu	Lys	Asp	Ala	Val	Arg

```

                245                250                255
Ala Arg Gly Leu Leu Asp Arg Ser Phe Ala Asn Met Ala Glu Pro Phe
                260                265                270
Lys Val Trp Thr Glu Asn Ala Asp Gly Ser Gly Ala Val Asn Phe Leu
                275                280                285
Thr Gly Met Gly Gly Phe Leu Gln Ala Val Val Phe Gly Cys Thr Gly
                290                295                300
Phe Arg Val Thr Arg Ala Gly Val Thr Phe Asp Pro Val Cys Leu Ser
                305                310                315
Gly Ile Ser Arg Val Ser Val Ser Gly Ile Phe Tyr Gln Gly Asn Lys
                325                330                335
Leu Asn Phe Ser Phe Ser Glu Asp Ser Val Thr Val Glu Val Thr Ala
                340                345                350
Arg Ala Gly Pro Trp Ala Pro His Leu Glu Ala Glu Leu Trp Pro Ser
                355                360                365
Gln Ser Arg Leu Ser Leu Leu Pro Gly His Lys Val Ser Phe Pro Arg
                370                375                380
Ser Ala Gly Arg Ile Gln Met Ser Pro Pro Lys Leu Pro Gly Ser Ser
                385                390                395
Ser Ser Glu Phe Pro Gly Arg Thr Phe Ser Asp Val Arg Asp Pro Leu
                405                410                415
Gln Ser Pro Leu Trp Val Thr Leu Gly Ser Ser Ser Pro Thr Glu Ser
                420                425                430
Leu Thr Val Asp Pro Ala Ser Glu
                435                440

```

<210> 5759

<211> 1333

<212> DNA

<213> Homo sapiens

<400> 5759

```

cgccacgggcg cgcgagtggt tgacgcgctt cttagctggg gcgcgcgga gcccaaatc
60
caagtggaaa ctgcaggcgc acgaggagg aacgcgtgga gcatgaaaaa gcagggggcc
120
tcctctgagc gaaaacgagc gcggataccg tccgggaagg ccggagcagc aaatggattt
180
ctcatggaag tttgtgttga ttcatgggaa tcagctgtga atgcagaaag aggaggtgct
240
gatcggattg aattatgttc tggtttatca gaggggggaa ctacacccag catgggtgtc
300
cttcaagtag tgaagcagag tggtcagatc ccagtttttg tgatgattcg gccacgggga
360
ggtgattttt tgtattcaga tcgtgaaatt gaggtgatga aggctgacat tcgtttgcc
420
aagctttatg gtgctgatgg ttgggttttt ggggcattga ctgaagatgg acacattgac
480
aaagagctgt gtatgtccct tatggctatt tgccgccttc tgccagtcac ttccaccgga
540
gcctttgaca tggttcatga tccaatggca gctotggaga ccctcttaac cttggggattt
600
gaacgcgtgt tgaccagtgg atgtgacagt tcagcattag aagggtacc cctaataaag
660

```

cgactcattg agcaggcaaa aggcaggatt gtggtaatgc caggaggtgg tataacagac
 720
 agaaatctac aaaggatcct tgagggttca ggtgctacag aattccactg ttctgctcgg
 780
 tctactagag actcgggaat gaagtcttca aattcatctg ttgccatggg agcctcactt
 840
 tcttgctcag aatattccct aaaggtaaca gatgtgacca aagtaaggac ttggaatgct
 900
 atcgcaaga acatcctggg gtagccagac ctctctgaga gacatggata tcacaggatg
 960
 aaggtagaac tataatctgc aattctctat gacacagctt taaccttctt ctctggccag
 1020
 gacagtgcga atctttgttt taagtttcac atggccatgg agaattgtgc caagaagaaa
 1080
 aagaatttga aacagagata cagtcacttc ctttgcctag tcttaccagt gattgtctac
 1140
 atgggttaaag ctggctctgtg cttcttccat agacagaagc ttagtctgtt ttcagtggaa
 1200
 ttaattgatg aactgggaaa attttaactg catggtatga attcagagtg tgacttaagg
 1260
 gtcaattcaa agcagtattt tgacttttca ttgtataaat aaaaatttcc actattaaaa
 1320
 aaaaaaaaaa aaa
 1333

<210> 5760

<211> 273

<212> PRT

<213> Homo sapiens

<400> 5760

Met Lys Arg Gln Gly Ala Ser Ser Glu Arg Lys Arg Ala Arg Ile Pro
 1 5 10 15
 Ser Gly Lys Ala Gly Ala Ala Asn Gly Phe Leu Met Glu Val Cys Val
 20 25 30
 Asp Ser Val Glu Ser Ala Val Asn Ala Glu Arg Gly Gly Ala Asp Arg
 35 40 45
 Ile Glu Leu Cys Ser Gly Leu Ser Glu Gly Gly Thr Thr Pro Ser Met
 50 55 60
 Gly Val Leu Gln Val Val Lys Gln Ser Val Gln Ile Pro Val Phe Val
 65 70 75 80
 Met Ile Arg Pro Arg Gly Gly Asp Phe Leu Tyr Ser Asp Arg Glu Ile
 85 90 95
 Glu Val Met Lys Ala Asp Ile Arg Leu Ala Lys Leu Tyr Gly Ala Asp
 100 105 110
 Gly Leu Val Phe Gly Ala Leu Thr Glu Asp Gly His Ile Asp Lys Glu
 115 120 125
 Leu Cys Met Ser Leu Met Ala Ile Cys Arg Pro Leu Pro Val Thr Phe
 130 135 140
 His Arg Ala Phe Asp Met Val His Asp Pro Met Ala Ala Leu Glu Thr
 145 150 155 160
 Leu Leu Thr Leu Gly Phe Glu Arg Val Leu Thr Ser Gly Cys Asp Ser
 165 170 175
 Ser Ala Leu Glu Gly Leu Pro Leu Ile Lys Arg Leu Ile Glu Gln Ala

	180		185		190
Lys	Gly	Arg	Ile	Val	Val
	195		200		205
Leu	Gln	Arg	Ile	Leu	Glu
	210		215		220
Ala	Arg	Ser	Thr	Arg	Asp
	225		230		235
Ala	Met	Gly	Ala	Ser	Leu
		245		250	255
Asp	Val	Thr	Lys	Val	Arg
	260		265		270
Val					

<210> 5761

<211> 1452

<212> DNA

<213> Homo sapiens

<400> 5761

```

nnaccatctt aaggacagaa aagctacagg actctaggag gccaccgtcc tgatttggga
60
agtccaactt actttggcca gacagcagct aagctgggtc atcccatcag cctggattgg
120
tgaaactgaa tcacaggaga tatttcagg tttgctggga tgggaacct gctcaaagtc
180
cttaccaggg aaattgaaaa ctatccacac ttttccctgg attttgaaaa tgctcagcct
240
acagaaggag agagagaaat ctggaaccag atcagcgccg tccttcagga ttctgagagc
300
atccttcag acctgcaggc ttacaaaggc gcaggcccag agatccgaga tgcaattcaa
360
aatcccaatg acattcagct tcaagaaaaa gcttggaatg cgggtgtccc tcttggttg
420
aggctaaaga gattttacga gttttccatt agactagaaa aagctcttca gagtttattg
480
gaatctctga cttgtccacc ctacacacca acccaacacc tggaaaggga acaggccctg
540
gcaaaggagt ttgccgaaat ttacatttt acccttcgat tcgatgagct gaagatgagg
600
aaccoggcta ttcagaatga cttcagctac tacagaagaa caatcagtcg caaccgcatc
660
aacaacatgc acctagacat tgagaatgaa gtcaataatg agatggccaa tcgaatgtcc
720
ctctctatg cagaagccac gccaatgctg aaaaccctta gcaatgccac aatgcacttt
780
gtctctgaaa acaaaactct gccaatagag aacaccacag actgcctcag cacaatgaca
840
agtgtctgta aagtcagctt ggaaactccg gagtacagaa gtagggttac gagtgaaag
900
accctgatgt tctgcatgag ggtgatgggt ggagtcacat tcctctatga ccatgtccac
960
cctgtgggag ctttctgcaa gacatccaag atcgatatga aaggctgcat aaaagttttg
1020

```

aaggagcagg cccagacag tgtggagggg ctgctaaatg ccctcaggtt cactacaaag
 1080
 cacttgaacg atgaatcaac ttccaaacag attcgagcaa tgcttcagta gagctctgct
 1140
 caaagaagag gatctatgtg ctgacctcag aagatgtata tgtttacata atttaataca
 1200
 gattgatgtt aatacttgtg tatttacata accgtttcct tcttgtcact gaaatatatg
 1260
 gaccttaatt tgtatcttga ctgactcaac ccagcagagc ataaattgac ttgagagcct
 1320
 tacctttgat gtctgaaatg aaacccctt ctccaaaggc aaaattcgga gactttgatc
 1380
 ttgtctactg gagtccttta acaacaccta taacgataaa aaattcctaa ttgtttgtgg
 1440
 tagtaaaaaa aa
 1452

<210> 5762

<211> 333

<212> PRT

<213> Homo sapiens

<400> 5762

Ile	Thr	Gly	Asp	Ile	Ser	Arg	Phe	Ala	Gly	Met	Gly	Asn	Leu	Leu	Lys
1			5						10				15		
Val	Leu	Thr	Arg	Glu	Ile	Glu	Asn	Tyr	Pro	His	Phe	Phe	Leu	Asp	Phe
			20					25					30		
Glu	Asn	Ala	Gln	Pro	Thr	Glu	Gly	Glu	Arg	Glu	Ile	Trp	Asn	Gln	Ile
		35					40					45			
Ser	Ala	Val	Leu	Gln	Asp	Ser	Glu	Ser	Ile	Leu	Ala	Asp	Leu	Gln	Ala
		50				55					60				
Tyr	Lys	Gly	Ala	Gly	Pro	Glu	Ile	Arg	Asp	Ala	Ile	Gln	Asn	Pro	Asn
65					70				75					80	
Asp	Ile	Gln	Leu	Gln	Glu	Lys	Ala	Trp	Asn	Ala	Val	Cys	Pro	Leu	Val
			85						90					95	
Val	Arg	Leu	Lys	Arg	Phe	Tyr	Glu	Phe	Ser	Ile	Arg	Leu	Glu	Lys	Ala
			100					105					110		
Leu	Gln	Ser	Leu	Leu	Glu	Ser	Leu	Thr	Cys	Pro	Pro	Tyr	Thr	Pro	Thr
		115					120					125			
Gln	His	Leu	Glu	Arg	Glu	Gln	Ala	Leu	Ala	Lys	Glu	Phe	Ala	Glu	Ile
		130				135					140				
Leu	His	Phe	Thr	Leu	Arg	Phe	Asp	Glu	Leu	Lys	Met	Arg	Asn	Pro	Ala
145					150					155				160	
Ile	Gln	Asn	Asp	Phe	Ser	Tyr	Tyr	Arg	Arg	Thr	Ile	Ser	Arg	Asn	Arg
			165						170				175		
Ile	Asn	Asn	Met	His	Leu	Asp	Ile	Glu	Asn	Glu	Val	Asn	Asn	Glu	Met
			180					185					190		
Ala	Asn	Arg	Met	Ser	Leu	Phe	Tyr	Ala	Glu	Ala	Thr	Pro	Met	Leu	Lys
		195					200					205			
Thr	Leu	Ser	Asn	Ala	Thr	Met	His	Phe	Val	Ser	Glu	Asn	Lys	Thr	Leu
		210				215					220				
Pro	Ile	Glu	Asn	Thr	Thr	Asp	Cys	Leu	Ser	Thr	Met	Thr	Ser	Val	Cys
225					230					235				240	
Lys	Val	Met	Leu	Glu	Thr	Pro	Glu	Tyr	Arg	Ser	Arg	Phe	Thr	Ser	Glu

actgctaagg tgggtgggtgcc tcccaaagag ctcgtttttag ctggcaagga tgcagcagca
1140
gagtaacgatg agttggcaga acctcaagac ttctaggacg atcctgacat tatagccttc
1200
agaaaggcca acaaagtggtg tatttttoatc aaagttaacac cacagcgatga ggagggtgaa
1260
gtgaccgtgt gcttcaagat gaagcatgat tttaaaaacc tggcagcccc cattcgcccc
1320
attgaagaaa gtgaccagggtg aacagaagtc atctgggtcct cccagcatgt ggaacttagc
1380
ttgggccccac ttcttctcta aaagggttcca ctggagggtga gatcccaag gacagtatca
1440
cgttaaacct cgtttaaagt gtggaagctg ctgcttcatt aggccttggt tataacgatg
1500
taccctatga ctacggaatt ctattgctaa gaaagtggga gcataggcaa ggcattggga
1560
acacagggtg gctgctgttg ctcttgctct caccctgttt gacaccagta agtctgtgtc
1620
tccctcactg aaccctgcac gttgagtaac agcagcataa ttccatccta ggaaggggga
1680
tgggtgtttc ttggaatggc attgtattta ccacctgaga aactctgtac tgtctcttga
1740
tctgatctca ctaaggatca caatgtcaca gatgaaactt aaatgataac ccaaaggtag
1800
acctgtgtgt aatgatccag catgtgtcac aatgtaccaa ctgctttctg cattccgtta
1860
aatatcatct aacagtctaa aacatatccc ttctattgcca taatggctgc cattttgcca
1920
tagatttcca tataactgaa aaactgaatt gtcactttat cttagtatc atgatgattg
1980
gaaaaacctg tgaagttgtt aaggcactct catttgccct ctttttctaa gtgaatacag
2040
gacacgtatt agttgttctt aatttttttc ccagtaaaat atggatcttt taagaagaat
2100
ttgagaagca aacaattaca tgtcatgtca agggggtagc agattccatt cgttttcaat
2160
attgccacaa taccagggga ttaatgtctg cacagggggg caatctttat ttgtcttact
2220
tctaccctct tccctgttct gcctctttaa ctacgttaag ttgttctgtt tgggacctgg
2280
aaaagaaccc aaagaaaacc tgagtggaca gggttcattc tgggaatgac aaaacatttt
2340
aaaggctaga tttttagaat attctcaact agcattcttt ccattgattt gaaggggaaa
2400
ttaactatta taatctcttg aatccaaaac tggatattaa gaactttccc cttactaag
2460
tttaagactt ttgtcatgtg gtgagtcaaa taagaccatt ttgattgtaa accataaaat
2520
agttcagcaa gtagccacac gttctggcct aacagcagac ttgctgtttt cacttggtat
2580
cctggagtgt ggttgctaac cttaatttct atgatgtttt ctaaaatgaa acttgataaa
2640
gtagaccacc agctgcacog tgttttctgt aaaagtattg ttagttaagt gccaaagagc
2700

ttgaggaaaa tacagatttt ttgtttacct tggctctgtt ttaagtctta aaaaattaaa
 2760
 gataacatta taatgtagaa tacagatggg acatagtcct tgtaagcttc ccttgaaaaat
 2820
 gttttaataa ttttaggaagc tttttaaaga cactaaattg tactctaaaa gacactaaat
 2880
 tgtataact gtacaaaggc caagccaatt ttatgaaaca gtccctacaga gtaatatatg
 2940
 tgatgcagt taagaaggaa aatactcctc tctaaccatta tggtaataac atttagcctc
 3000
 ttaggagttg gagcaggggg atgggtaatt acagatttgc agactataga aagagtttca
 3060
 tttttttgtg accccacaga gtctcaaatt tttatttcac tacctgctag agoctactgt
 3120
 gaaatcactg ctccatattt gccagtggag gaaatgggca tagagtagag aatagcttca
 3180
 tatgtttaca cgtttgata gactacacac atgtcatgag tttatggcag gtatgtggta
 3240
 tttattcccc aaagtaataa tgttgaagta tgggtctcat cattccccata cacagaaaaa
 3300
 caaaacactt tgatcataaa cttttttctt cagaagccaa actaacttgc agaataatag
 3360
 agccactggg ttaatgtttc ctcaagatag gttttagtgt aagctagtag tctgtgtgtt
 3420
 cgtagaaatg attcaatacc tgcagctggg gaattaggaa ttgtatttgt tgcctttttt
 3480
 atattagatg aggtgcacaaa attttaatgc tagtcagtag gcaccaccac aggaaagtta
 3540
 gatcccata gcaactgaaa ctacagcttt ggaaacctag gctaagttaa tttggatttg
 3600
 ttacttgatt cacctactga ctttttcttt tgtttgaagt gcttatcagc ataatgagct
 3660
 aagtgtcatg catattttgt aagaaacacc ctttttggtc ctttttggga gagagaggta
 3720
 ctccctgac tttatgaatg acaggttact gttttgcctt attgcttaac ttaatgtagt
 3780
 gaaataaagc agacaaagct tgaaaaaaa aaaaaaaaa aaaaaaaaa aaaaaaaaa
 3840

<210> 5764

<211> 466

<212> PRT

<213> Homo sapiens

<400> 5764

Xaa	Pro	Pro	Leu	Pro	Lys	Met	Ala	Ser	Leu	Leu	Gln	Ser	Asp	Arg	Val
1				5					10					15	
Leu	Tyr	Leu	Val	Gln	Gly	Glu	Lys	Lys	Val	Arg	Ala	Pro	Leu	Ser	Gln
		20						25					30		
Leu	Tyr	Phe	Cys	Arg	Tyr	Cys	Ser	Glu	Leu	Arg	Ser	Leu	Glu	Cys	Val
		35					40					45			
Ser	His	Glu	Val	Asp	Ser	His	Tyr	Cys	Pro	Ser	Cys	Leu	Glu	Asn	Met
		50				55					60				
Pro	Ser	Ala	Glu	Ala	Lys	Leu	Lys	Lys	Asn	Arg	Cys	Ala	Asn	Cys	Phe

```

65              70              75              80
Asp Cys Pro Gly Cys Met His Thr Leu Ser Thr Arg Ala Thr Ser Ile
      85              90              95
Ser Thr Gln Leu Pro Asp Asp Pro Ala Lys Thr Thr Met Lys Lys Ala
      100              105              110
Tyr Tyr Leu Ala Cys Gly Phe Cys Arg Trp Thr Ser Arg Asp Val Gly
      115              120              125
Met Ala Asp Lys Ser Val Ala Ser Gly Gly Trp Gln Glu Pro Glu Asn
      130              135              140
Pro His Thr Gln Arg Met Asn Lys Leu Ile Glu Tyr Tyr Gln Gln Leu
      145              150              155              160
Ala Gln Lys Glu Lys Val Glu Arg Asp Arg Lys Lys Leu Ala Arg Arg
      165              170              175
Arg Asn Tyr Met Pro Leu Ala Phe Ser Asp Lys Tyr Gly Leu Gly Thr
      180              185              190
Arg Leu Gln Arg Pro Arg Ala Gly Ala Ser Ile Ser Thr Leu Ala Gly
      195              200              205
Leu Ser Leu Lys Glu Gly Glu Asp Gln Lys Glu Val Lys Ile Glu Pro
      210              215              220
Ala Gln Ala Val Asp Glu Val Glu Pro Leu Pro Glu Asp Tyr Tyr Thr
      225              230              235              240
Arg Pro Val Asn Leu Thr Glu Val Thr Thr Leu Gln Gln Arg Leu Leu
      245              250              255
Gln Pro Asp Phe Gln Pro Val Cys Ala Ser Gln Leu Tyr Pro Arg His
      260              265              270
Lys His Leu Leu Ile Lys Arg Ser Leu Arg Cys Arg Lys Cys Glu His
      275              280              285
Asn Leu Ser Lys Pro Glu Phe Asn Pro Thr Ser Ile Lys Phe Lys Ile
      290              295              300
Gln Leu Val Ala Val Asn Tyr Ile Pro Glu Val Arg Ile Met Ser Ile
      305              310              315              320
Pro Asn Leu Arg Tyr Met Lys Glu Ser Gln Val Leu Leu Thr Thr
      325              330              335
Asn Pro Val Glu Asn Leu Thr His Val Thr Leu Phe Glu Cys Glu Glu
      340              345              350
Gly Asp Pro Asp Asp Ile Asn Ser Thr Ala Lys Val Val Val Pro Pro
      355              360              365
Lys Glu Leu Val Leu Ala Gly Lys Asp Ala Ala Ala Glu Tyr Asp Glu
      370              375              380
Leu Ala Glu Pro Gln Asp Phe Gln Asp Asp Pro Asp Ile Ile Ala Phe
      385              390              395              400
Arg Lys Ala Asn Lys Val Gly Ile Phe Ile Lys Val Thr Pro Gln Arg
      405              410              415
Glu Glu Gly Glu Val Thr Val Cys Phe Lys Met Lys His Asp Phe Lys
      420              425              430
Asn Leu Ala Ala Pro Ile Arg Pro Ile Glu Glu Ser Asp Gln Gly Thr
      435              440              445
Glu Val Ile Trp Leu Thr Gln His Val Glu Leu Ser Leu Gly Pro Leu
      450              455              460
Leu Pro
465

```

<210> 5765

<211> 3220

<212> DNA

<213> Homo sapiens

<400> 5765

cacgaggccc caccctcag gcaactggtt gttaccgagg aagatggcgg cgccagagccc
 60
 gaggcgctag ggaagatcgc accgcggacg cccgctgagc ttggcgacac ggccgaccag
 120
 gagctggtga ctgccctcat gtgtgatttg cggcgggccag cggcaggtgg gatgatggac
 180
 ttggcctacg tctgtgagtg ggagaaatgg tccaagagca cccactgccc atcgggtccc
 240
 ctggcctcgc cctggtcctg cggaaatctc atcgccctca ccatggacct gcgcagcgat
 300
 gaccaggacc tgaccgcgat gatccacatc ctggacacgg agcaccctcg ggacctgcac
 360
 tcgattccct cagagcacca cgaggccatc acctgcctgg agtggggacca gtacggctcc
 420
 cggctcctgt cagcagatgc cgacgggcag atcaagtgcg ggagcatggc ggaccacctg
 480
 gctaataget gggagagctc agtgggcagc ctagtggagg gggaccccat tggggccctg
 540
 tcctggctgc acaatgggtg gaaactggcc ctgcacgtgg agaagtcggg cgctccagc
 600
 ttccggggaga agttctcccg agtcaagttc tcaccgtcgc tcacgctggt cggcgggcaag
 660
 cccatggagg gctggatcgc ggtgacggtc agcggccctg tcaccgtgtc cctgctgaag
 720
 cccagcgggc aggtgctgac gtccaccgag agcctgtgcc ggctgcgcgg ccgcgtggcc
 780
 ctggcgcgaca tcgccttcac cggcgggcgg aacatcgtgg tggccacggc ggacggcagc
 840
 agcgcgtcgc ccgtgcagtt ctacaagggtg tgcgtgagcg tggtagagca gaagtgccgt
 900
 atcgacacgg agatccctgcc ctcccgtgtc atgcgtgca ccaccgacct caaccgcaag
 960
 gacaagtctc cgcctatcac ccacctcaag ttccctggccc gggacatgtc ggagcagggtg
 1020
 cttttgtgag cgtccagcca gaccagcagc atcgtggagt gctggtccct gcgcaaggag
 1080
 ggaactcccc tgaacaacat ctccagcagc atctcccccg tggttggcga caaacagccc
 1140
 acaattctca aatggcggat cctatcgccc accaacgata tggaccgtgt gtcggccgtg
 1200
 gcgctgcccc agctgcccat ttgcgtcacc aacaccgacc tcaaggtggc cagcgacaca
 1260
 cagttctacc ctggcctcgg gctggccctg gccttccacg acggcagcgt ccacatcgtg
 1320
 caccggctct cactgcagac catggcggtc ttctacagct ccggggcccc gaggcctgtg
 1380
 gatgagccgg ccatgaagcg ccccgcacc cggggccccg ccgtccactt aaaggctatg
 1440
 cagctatcgt ggacgtcact ggcctgggtg gggattgaca gccacgggaa gctgagcgtg
 1500

ctccgcctct cacctcccat gggccaccgc ctggaggtgg ggctggcgct gcggcacctg
1560
ctctctctgc tggagtactg catggtgacc ggctacgact ggtgggacat cctgctgcac
1620
gtgcagccca gtatggtaca gagcctgggt gagaagctgc acgaggagta cacgcgcag
1680
accgctgccc tgcagcaggt cctctccacc cggatccctg ccatgaaggc ctgctctgct
1740
aagctgtcgc cctgcacggt gaaccgcgtg tgcgaactacc acaccaagct ctctctcacc
1800
gccatcagct ccacctgaa gtctgtgtgt cgcctccact ttctcaacac gcctgacaag
1860
agccccggcg accggtgac cgagatctgc accaagatca ccgacgtcga cattgacaag
1920
gtcatgatca acctcaagac ggaggaattt gtctgggaca tgacacactg caggcgctgc
1980
agcagctctt gcagtgggtg ggcgactctg tctgttacct gctggccagc ctacccaacc
2040
agccctgccc cacctcggag ccttgcccca cctcggagcc ctccccacc tcggagccct
2100
ccccacactc ggagccctcc tctccatgaa gcctctgtgt gtctcctgct gaggccgggc
2160
cacagcttcc tgcgggacgg cacctcgtgt ggcgatcttc gggaattgat ggtggctcacc
2220
cgcatctggg gccttctgaa gccacgtcgc ctgccctgtg atacggccac ctcgataacc
2280
caggacagca tgctcctgct ctctccgctg ctacccaagc tctggatctg ctgtcgcgat
2340
gagggcccoag cgagcgagcc ggatgaggcg ctggtgggat aatgctgcct gctgccacgc
2400
cagctgctta tccccagcct ggactggctg ccagccagcg acggcctgggt tagccgcctg
2460
cagcccaagc agcccccttg tctgcagttt ggccgggcgc ccacgctgcc tggcagtgct
2520
gccacctctg agctcgacgg cctcgccagg gcccccagcc agcccaagat cgaccacctg
2580
cggaggctgc accttggcgc ttgccccacg gagggaatgca aggcctgcac cagggtgggc
2640
tgtgtcacca tgetcaagtc gcccaacaga accacggcgg tgaagcagtg ggagcagcgc
2700
tggtacaaga actgctgtgt cgggtgggctc tgggtggcgg tgccccctag ctacccctga
2760
gccacgtcgc ccctcagcta ctctcagct acccctcagc tgccccctgag cccggtgct
2820
gcaagagcca ccgctcgcct tggactctcc tcggcgcggt taacctcagc ccgccccgca
2880
gggtgtgtga aggcctgtggg ccggacgcct cgtgtaccag cagagcttct gaggaagccc
2940
ctgcttctgt ccagctgggc ccgcagtcca cacaccactc tcccaggacc ccagatccct
3000
ggaccatctg catccagagg accgtccgtg acggccgggg gtccaggcgg acctgtgtgt
3060
gaccggctc gggcgctctc tcggtttctt tgcctcacc gcggagagcg ctgaacctgg
3120

acaagcagcg gctgggaagg acaggtccaa taaacgcct ctgcgcccc aaaaaaaaaa
 3180
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa
 3220

<210> 5766
 <211> 873
 <212> PRT
 <213> Homo sapiens

<400> 5766
 Met Cys Asp Leu Arg Arg Pro Ala Ala Gly Gly Met Met Asp Leu Ala
 1 5 10 15
 Tyr Val Cys Glu Trp Glu Lys Trp Ser Lys Ser Thr His Cys Pro Ser
 20 25 30
 Val Pro Leu Ala Cys Ala Trp Ser Cys Arg Asn Leu Ile Ala Phe Thr
 35 40 45
 Met Asp Leu Arg Ser Asp Asp Gln Asp Leu Thr Arg Met Ile His Ile
 50 55 60
 Leu Asp Thr Glu His Pro Trp Asp Leu His Ser Ile Pro Ser Glu His
 65 70 75 80
 His Glu Ala Ile Thr Cys Leu Glu Trp Asp Gln Ser Gly Ser Arg Leu
 85 90 95
 Leu Ser Ala Asp Ala Asp Gly Gln Ile Lys Cys Trp Ser Met Ala Asp
 100 105 110
 His Leu Ala Asn Ser Trp Glu Ser Ser Val Gly Ser Leu Val Glu Gly
 115 120 125
 Asp Pro Ile Val Ala Leu Ser Trp Leu His Asn Gly Val Lys Leu Ala
 130 135 140
 Leu His Val Glu Lys Ser Gly Ala Ser Ser Phe Gly Glu Lys Phe Ser
 145 150 155 160
 Arg Val Lys Phe Ser Pro Ser Leu Thr Leu Phe Gly Gly Lys Pro Met
 165 170 175
 Glu Gly Trp Ile Ala Val Thr Val Ser Gly Leu Val Thr Val Ser Leu
 180 185 190
 Leu Lys Pro Ser Gly Gln Val Leu Thr Ser Thr Glu Ser Leu Cys Arg
 195 200 205
 Leu Arg Gly Arg Val Ala Leu Ala Asp Ile Ala Phe Thr Gly Gly Gly
 210 215 220
 Asn Ile Val Val Ala Thr Ala Asp Gly Ser Ser Ala Ser Pro Val Gln
 225 230 235 240
 Phe Tyr Lys Val Cys Val Ser Val Val Ser Glu Lys Cys Arg Ile Asp
 245 250 255
 Thr Glu Ile Leu Pro Ser Leu Phe Met Arg Cys Thr Thr Asp Leu Asn
 260 265 270
 Arg Lys Asp Lys Phe Pro Ala Ile Thr His Leu Lys Phe Leu Ala Arg
 275 280 285
 Asp Met Ser Glu Gln Val Leu Leu Cys Ala Ser Ser Gln Thr Ser Ser
 290 295 300
 Ile Val Glu Cys Trp Ser Leu Arg Lys Glu Gly Leu Pro Val Asn Asn
 305 310 315 320
 Ile Phe Gln Gln Ile Ser Pro Val Val Gly Asp Lys Gln Pro Thr Ile
 325 330 335
 Leu Lys Trp Arg Ile Leu Ser Ala Thr Asn Asp Leu Asp Arg Val Ser

```

340          345          350
Ala Val Ala Leu Pro Lys Leu Pro Ile Ser Leu Thr Asn Thr Asp Leu
355
Lys Val Ala Ser Asp Thr Gln Phe Tyr Pro Gly Leu Gly Leu Ala Leu
370          375          380
Ala Phe His Asp Gly Ser Val His Ile Val His Arg Leu Ser Leu Gln
385          390          395          400
Thr Met Ala Val Phe Tyr Ser Ser Ala Ala Pro Arg Pro Val Asp Glu
405          410          415
Pro Ala Met Lys Arg Pro Arg Thr Ala Gly Pro Ala Val His Leu Lys
420          425          430
Ala Met Gln Leu Ser Trp Thr Ser Leu Ala Leu Val Gly Ile Asp Ser
435          440          445
His Gly Lys Leu Ser Val Leu Arg Leu Ser Pro Ser Met Gly His Pro
450          455          460
Leu Glu Val Gly Leu Ala Leu Arg His Leu Leu Phe Leu Leu Glu Tyr
465          470          475          480
Cys Met Val Thr Gly Tyr Asp Trp Trp Asp Ile Leu Leu His Val Gln
485          490          495
Pro Ser Met Val Gln Ser Leu Val Glu Lys Leu His Glu Glu Tyr Thr
500          505          510
Arg Gln Thr Ala Ala Leu Gln Gln Val Leu Ser Thr Arg Ile Leu Ala
515          520          525
Met Lys Ala Ser Leu Cys Lys Leu Ser Pro Cys Thr Val Thr Arg Val
530          535          540
Cys Asp Tyr His Thr Lys Leu Phe Leu Ile Ala Ile Ser Ser Thr Leu
545          550          555          560
Lys Ser Leu Leu Arg Pro His Phe Leu Asn Thr Pro Asp Lys Ser Pro
565          570          575
Gly Asp Arg Leu Thr Glu Ile Cys Thr Lys Ile Thr Asp Val Asp Ile
580          585          590
Asp Lys Val Met Ile Asn Leu Lys Thr Glu Glu Phe Val Leu Asp Met
595          600          605
Thr His Cys Arg Arg Cys Ser Ser Cys Ser Gly Trp Ala Thr Ser
610          615          620
Cys Cys Thr Cys Trp Pro Ala Tyr Pro Thr Ser Pro Ala Pro Pro Arg
625          630          635          640
Ser Pro Ala Pro Pro Arg Ser Pro Pro Pro Arg Ser Pro Pro Pro
645          650          655
Pro Arg Ser Pro Pro Leu His Glu Ala Ser Ala Gly Ser Leu Leu Arg
660          665          670
Pro Gly His Ser Phe Leu Arg Asp Gly Thr Ser Leu Gly Met Leu Arg
675          680          685
Glu Leu Met Val Val Ile Arg Ile Trp Gly Leu Leu Lys Pro Ser Cys
690          695          700
Leu Pro Val Tyr Thr Ala Thr Ser Asp Thr Gln Asp Ser Met Ser Leu
705          710          715          720
Leu Phe Arg Leu Leu Thr Lys Leu Trp Ile Cys Cys Arg Asp Glu Gly
725          730          735
Pro Ala Ser Glu Pro Asp Glu Ala Leu Val Asp Glu Cys Cys Leu Leu
740          745          750
Pro Ser Gln Leu Leu Ile Pro Ser Leu Asp Trp Leu Pro Ala Ser Asp
755          760          765
Gly Leu Val Ser Arg Leu Gln Pro Lys Gln Pro Leu Arg Leu Gln Phe

```

```

      770              775              780
Gly Arg Ala Pro Thr Leu Pro Gly Ser Ala Ala Thr Leu Gln Leu Asp
785              790              795              800
Gly Leu Ala Arg Ala Pro Gly Gln Pro Lys Ile Asp His Leu Arg Arg
      805              810              815
Leu His Leu Gly Ala Cys Pro Thr Glu Glu Cys Lys Ala Cys Thr Arg
      820              825              830
Cys Gly Cys Val Thr Met Leu Lys Ser Pro Asn Arg Thr Thr Ala Val
      835              840              845
Lys Gln Trp Glu Gln Arg Trp Ile Lys Asn Cys Leu Cys Gly Gly Leu
      850              855              860
Trp Trp Arg Val Pro Leu Ser Tyr Pro
865              870

<210> 5767
<211> 1910
<212> DNA
<213> Homo sapiens

<400> 5767
ggtagaaaaa tacacctatt aacaacatta gtaaacacca gaaaccatct aaaaggaatc
60
tttcatggg caagacgata tcctctctgt gagaccaca agtttggttt gagtactcc
120
tcagtatcgt ggggttttgc tctattctga agggatcccc catcacgctg gcagctgtgt
180
gccaggagag accctgaggg ctgcctcacc acagcaggaa cgcctctctc agtcccagcc
240
caatctcttc tcacactgcg gtgctctgtc cctatggaaa cagcctctgt atgtgtgtgt
300
gtgtgtgtgt gtgtgtgtgt gtgtgaataa tatatggaat aaagtttgag attccctgct
360
ttttcatggt accttagcct caattttaaa cttacattgt ttgttaaaat tatcaaatgg
420
acaacctcat tgctatggaa caaaaaagac tgtgaggaaa aagaatcata acttgaaaaa
480
aaataagtga aaaggcattg agagattgct aagatttgtt aggttaaaac aataatatat
540
ctagaaaaga ctgtgaaaaa atatatctca aaagagaaca aggcatagtc agaaggctca
600
gtaaaacaat tacttttaaaa gctgactaat aaaaagggtg agtgaaagaa ctcttccatc
660
cttgaccctt cctcacttcc tcctctcgac tctaccagtc tggatgcact aaagcagaat
720
aacctaaaag ccatgaaaaa gtgtggtgat ttttcaggat ctcttcaaga caccttccgt
780
cttgtaacc tgaattctct ctctgatcaa ggcagctgat ggactttcaa tgtatttggg
840
gatgccgggt caaaaacgtc atcatcatct tctgtcctct ctctatctcg tttctatctg
900
gcagaggctc gctgggtgtg ggatgacaca tgaagagagg acatgctgga ggtactccga
960
agaaactggt gcaagcgtc gtcaactgtc ctggagctgg ctatactgtt cctcatttcc
1020

```


aacatggaga tctgtgtgca gaggtgagc tgatgttcca gctttttggc tttcttatca
 1080
 ttttaagggtg gatcattcaa tgagtagagc ttatttgtga tgtcttttcc aataagatac
 1140
 ctaaagattt catacaagaa aggttctgat tccagaaagt atgttaatct ttctcttgac
 1200
 cagcataaaa atctgcagtt atcatctgca ataatggtga cctggaattt ttaccccttg
 1260
 tgcatctgag ttgatctaaa ttcaggagaa tctataaagg cacaggggta aatgttatgc
 1320
 agaaaatgtc ctgatagga gaccttcatt tttcccttca agagaatact cagacgggtca
 1380
 tcaactgagg ttttattctc tgcagcataa gtttggccct ttttcaaggt ttggtatcatg
 1440
 caaaaactgtc cagttagtct tctgaacaaa tctggaggca cacggagtgg ttcaacaat
 1500
 cgccggtaca tgccactgag ttcttttca atctttaccg gtctcttctt gtataaaaga
 1560
 taccagacat gcaaaatggt gacaccaag aacacagagt tccagatcat tatatccaag
 1620
 gcacatcggt agagagtggc ccagacgata taaagggtac atcctagagt taacattccc
 1680
 ctaagaaata tcatatgaag gtgaagagta gttggaataa ccaaccaac tgcaaaacaa
 1740
 atatttgcta catgaaaaac cagatgatgt atctctctcc agttttcaca agtgggtctta
 1800
 ttggaagca caggtatgat actttctaac tcaggtgtaa aacctatggc agttgattct
 1860
 ctcaatgggc tggactctgt ataattcatt ttgaaaatcc cggtcggtcc
 1910

<210> 5768

<211> 360

<212> PRT

<213> Homo sapiens

<400> 5768

Met Asn Tyr Thr Glu Ser Ser Pro Leu Arg Glu Ser Thr Ala Ile Gly
 1 5 10 15
 Phe Thr Pro Glu Leu Glu Ser Ile Ile Pro Val Pro Ser Asn Lys Thr
 20 25 30
 Thr Cys Glu Asn Trp Arg Glu Ile His His Leu Val Phe His Val Ala
 35 40 45
 Asn Ile Cys Phe Ala Val Gly Leu Val Ile Pro Thr Thr Leu His Leu
 50 55 60
 His Met Ile Phe Leu Arg Gly Met Leu Thr Leu Gly Cys Thr Leu Tyr
 65 70 75 80
 Ile Val Trp Ala Thr Leu Tyr Arg Cys Ala Leu Asp Ile Met Ile Trp
 85 90 95
 Asn Ser Val Phe Leu Gly Val Asn Ile Leu His Leu Ser Tyr Leu Leu
 100 105 110
 Tyr Lys Lys Arg Pro Val Lys Ile Glu Lys Glu Leu Ser Gly Met Tyr
 115 120 125
 Arg Arg Leu Phe Glu Pro Leu Arg Val Pro Pro Asp Leu Phe Arg Arg

130 135 140
 Leu Thr Gly Gln Phe Cys Met Ile Gln Thr Leu Lys Lys Gly Gln Thr
 145 150 155 160
 Tyr Ala Ala Glu Asp Lys Thr Ser Val Asp Asp Arg Leu Ser Ile Leu
 165 170 175
 Leu Lys Gly Lys Met Lys Val Ser Tyr Arg Gly His Phe Leu His Asn
 180 185 190
 Ile Tyr Pro Cys Ala Phe Ile Asp Ser Pro Glu Phe Arg Ser Thr Gln
 195 200 205
 Met His Lys Gly Glu Lys Phe Gln Val Thr Ile Ile Ala Asp Asp Asn
 210 215 220
 Cys Arg Phe Leu Cys Trp Ser Arg Glu Arg Leu Thr Tyr Phe Leu Glu
 225 230 235 240
 Ser Glu Pro Phe Leu Tyr Glu Ile Phe Arg Tyr Leu Ile Gly Lys Asp
 245 250 255
 Ile Thr Asn Lys Leu Tyr Ser Leu Asn Asp Pro Thr Leu Asn Asp Lys
 260 265 270
 Lys Ala Lys Lys Leu Glu His Gln Leu Ser Leu Cys Thr Gln Ile Ser
 275 280 285
 Met Leu Glu Met Arg Asn Ser Ile Ala Ser Ser Ser Asp Ser Asp Asp
 290 295 300
 Gly Leu His Gln Phe Leu Arg Ser Thr Ser Ser Met Ser Ser Leu His
 305 310 315 320
 Val Ser Ser Pro His Gln Arg Ala Ser Ala Lys Met Lys Pro Ile Glu
 325 330 335
 Glu Gly Ala Glu Asp Asp Asp Val Phe Glu Pro Ala Ser Pro Asn
 340 345 350
 Thr Leu Lys Val His Gln Leu Pro
 355 360

<210> 5769

<211> 427

<212> DNA

<213> Homo sapiens

<400> 5769

gctagcagtg ggggtgctag tgacaccata gcatttgagg agcatcacct ccctcctgtg
 60
 agtatggcat ccaactgtacc tcactccctt cgtagggcga gagataaac aatcatggat
 120
 ctgcagacac agctgaagga agtattaaga gaaaatgac tcttgaggaa ggatgtggaa
 180
 gtaaaggaga gcaaattgag ttcttcaatg aatagcatca agatcttctg gggcccgagg
 240
 ctgaagaagg aacgagccct gagaaggat gaagcttcca aaatcccat ttggaaggaa
 300
 cagtacagag ttgtacaaga ggaaaaccag gtaagttcta cgtgtgttta cctttattgg
 360
 ctgaattcat gtatatataat gaaatagcct tttttttccc ctttctctaga tttttccctt
 420
 cagcgcgt
 427

<210> 5770

<211> 85
 <212> PRT
 <213> Homo sapiens

<400> 5770
 Leu Gln Thr Gln Leu Lys Glu Val Leu Arg Glu Asn Asp Leu Leu Arg
 1 5 10 15
 Lys Asp Val Glu Val Lys Glu Ser Lys Leu Ser Ser Ser Met Asn Ser
 20 25 30
 Ile Lys Ile Phe Trp Gly Pro Glu Leu Lys Lys Glu Arg Ala Leu Arg
 35 40 45
 Lys Asp Glu Ala Ser Lys Ile Pro Ile Trp Lys Glu Gln Tyr Arg Val
 50 55 60
 Val Gln Glu Glu Asn Gln Val Ser Ser Thr Cys Val Tyr Leu Tyr Trp
 65 70 75 80
 Leu Asn Ser Cys Ile
 85

<210> 5771
 <211> 2539
 <212> DNA
 <213> Homo sapiens

<400> 5771
 gtacacattc caaaaagaga ttgatacact tgcaatgaag ggtctctgct tgagggagcc
 60
 aggagtcggg tttgtcttgc caatggaagt tggagtggag ccactcccga ctgtgtgcct
 120
 gtcagatgtg cccccccgcc acaactggcc aatgggggtga cggaaggcct ggactatggc
 180
 ttcatgaagg aagtaacatt ccaactgtcat gggctacatc ttgcacgggtg ctccaaaact
 240
 cacctgtcag tcagaggcaa ctgggatgca gagattcctc tctgtaaac agtcaactgt
 300
 ggacctctg aagatcttgc ccatgggttc cctaattggt ttctctttat tcatgggggc
 360
 catatacagt atcagtgctt tcctgggttat aagctccatg gaaattcatc aagaaggtgc
 420
 ctctccaatg gctctggag tggcagctca cttctctgcc tgccttgag atgttccaca
 480
 ccagtaattg aatatggaac tgtcaatggg acagattttg actgtggaaa ggcagcccg
 540
 attcagtgct tcaaaaggctt caagctccta ggactttctg aaatcacctg tgaagccgat
 600
 ggcagtgga gctctgggtt cccccactgt gaacacactt cttgtggttc tcttccaatg
 660
 ataccaaagt cggtcatcag tgagaccagc tcttggaagg aaaatgtgat aacttacagc
 720
 tgcaaggtct gatatgtcat acaaggcagt tcagatctga tttgtacaga gaaagggga
 780
 tggaaccagc cttatccagt ctgtgagccc ttgtcctgtg ggtccccacc gtctgtcgcc
 840
 aatgcagtg caactggaga ggcacacacc tatgaaagtg aagtgaactc agatgtctg
 900

gaagggttata cgatggatac agatacagat acaatcacct gtcagaaaaga tggctcgtcg
960
ttccctgaga gaatctcctg cagtcctaaa aaatgtcctc tcccgaaaaa cataacacat
1020
atacttgtag atggggacga ttctagtggt aataggcaag ttctgtgtc atgtgcagaa
1080
gggtataacct ttgaggaggt taacatatca gtatgtcagc ttgatggaaac ctgggagcca
1140
ccattctccg atgaatcttg cagtcaggtt tcttggtgga aacctgaaa tccagaacat
1200
ggatttgtag ttggcagtaa atacaccttt gaaagcaca ttatttatca gtgtgagcct
1260
ggctatgaac tagaggggaa cagggaacgt gtctgccagg agaacagaca gtggagtggga
1320
ggggtggcaa tatgcaaaga gaccaggtgt gaaactccac ttgaatttct caatgggaaa
1380
gctgacattg aaacacggac gactggacc aacgtggtat attcctgcaa cagaggctac
1440
agtcttgaag ggccatctga ggcacactgc acagaaaatg gaacctggag ccaccagtc
1500
cctctctgca aaccaaactc atgccctgtt ctttttgtga ttcccgagaa tgctctgtg
1560
tctgaaaaag agttttatgt tgatcagaat gtgtccatca aatgtaggga aggtttctg
1620
ctgcagggcc acggcatcat tacctgcaac cccgacgaga cgtggacaca gacaagcgcc
1680
aaatgtgaaa aaatctcatg tgggccacca gctcacgtag aaaatgcaat tgctcagggc
1740
gtacattatc aatatggaga catgatcacc tactcatgtt acagtggata catgttggag
1800
ggtttcttga ggagtgtttg tttagaaaat ggaacatgga catcacctcc tatttgaga
1860
gctgtctgtc gatttccatg tcagaatggg gggcatctgc caacgcccaa atgcttgttc
1920
ctgtccagag ggctggatgg ggcgcctctg tgaagaacca atctgcattc ttccctgtct
1980
gaacggaggt cgctgtgtgg ccccttacca gtgtgactgc ccgectggct ggacggggtc
2040
tcgctgtcat acagctgttt gccagctctc ctgcttaaat ggtggaaaa gtgtaagacc
2100
aaaccgatgt cactgtcttt ctctctggac gggacataac tgttcaggga aaaggaggac
2160
tgggttttaa cactgcacg accatctggc tctcccaaaa gcaggatcat ctctcctcgg
2220
tagtgccctg gcatcctgga acttatgcaa agaaagtcca acatggtgct gggctcttgtt
2280
tagtaaaact gttacttggg gttacttttt ttattttgtg atatatattg ttattccttg
2340
tgacatactt tcttacatgt ttccattttt aaatatgcct gtatttttcta tataaaaaat
2400
atattaaaaa gatgctgctc taccctcaca aaatgtacat attctgctgt ctattgggaa
2460
agttcctggg acacattttt attcagttac ttaaaatgat tttccatta aagtatattt
2520

tgctactaaa taaaaaaaa
2539

<210> 5772

<211> 642

<212> PRT

<213> Homo sapiens

<400> 5772

Tyr Thr Cys Asn Glu Gly Phe Leu Leu Glu Gly Ala Arg Ser Arg Val
1 5 10 15
Cys Leu Ala Asn Gly Ser Trp Ser Gly Ala Thr Pro Asp Cys Val Pro
20 25 30
Val Arg Cys Ala Thr Pro Pro Gln Leu Ala Asn Gly Val Thr Glu Gly
35 40 45
Leu Asp Tyr Gly Phe Met Lys Glu Val Thr Phe His Cys His Gly Leu
50 55 60
His Leu Ala Arg Cys Ser Lys Thr His Leu Ser Val Arg Gly Asn Trp
65 70 75 80
Asp Ala Glu Ile Pro Leu Cys Lys Pro Val Asn Cys Gly Pro Pro Glu
85 90 95
Asp Leu Ala His Gly Phe Pro Asn Gly Phe Ser Phe Ile His Gly Gly
100 105 110
His Ile Gln Tyr Gln Cys Phe Pro Gly Tyr Lys Leu His Gly Asn Ser
115 120 125
Ser Arg Arg Cys Leu Ser Asn Gly Ser Trp Ser Gly Ser Ser Pro Ser
130 135 140
Cys Leu Pro Cys Arg Cys Ser Thr Pro Val Ile Glu Tyr Gly Thr Val
145 150 155 160
Asn Gly Thr Asp Phe Asp Cys Gly Lys Ala Ala Arg Ile Gln Cys Phe
165 170 175
Lys Gly Phe Lys Leu Leu Gly Leu Ser Glu Ile Thr Cys Glu Ala Asp
180 185 190
Gly Gln Trp Ser Ser Gly Phe Pro His Cys Glu His Thr Ser Cys Gly
195 200 205
Ser Leu Pro Met Ile Pro Asn Ala Phe Ile Ser Glu Thr Ser Ser Trp
210 215 220
Lys Glu Asn Val Ile Thr Tyr Ser Cys Arg Ser Gly Tyr Val Ile Gln
225 230 235 240
Gly Ser Ser Asp Leu Ile Cys Thr Glu Lys Gly Val Trp Asn Gln Pro
245 250 255
Tyr Pro Val Cys Glu Pro Leu Ser Cys Gly Ser Pro Pro Ser Val Ala
260 265 270
Asn Ala Val Ala Thr Gly Glu Ala His Thr Tyr Glu Ser Glu Val Lys
275 280 285
Leu Arg Cys Leu Glu Gly Tyr Thr Met Asp Thr Asp Thr Asp Thr Ile
290 295 300
Thr Cys Gln Lys Asp Gly Arg Trp Phe Pro Glu Arg Ile Ser Cys Ser
305 310 315 320
Pro Lys Lys Cys Pro Leu Pro Glu Asn Ile Thr His Ile Leu Val His
325 330 335
Gly Asp Asp Phe Ser Val Asn Arg Gln Val Ser Val Ser Cys Ala Glu
340 345 350
Gly Tyr Thr Phe Glu Gly Val Asn Ile Ser Val Cys Gln Leu Asp Gly

```

      355              360              365
Thr Trp Glu Pro Pro Phe Ser Asp Glu Ser Cys Ser Pro Val Ser Cys
370              375              380
Gly Lys Pro Glu Ser Pro Glu His Gly Phe Val Val Gly Ser Lys Tyr
385              390              395              400
Thr Phe Glu Ser Thr Ile Ile Tyr Gln Cys Glu Pro Gly Tyr Glu Leu
      405              410              415
Glu Gly Asn Arg Glu Arg Val Cys Gln Glu Asn Arg Gln Trp Ser Gly
      420              425              430
Gly Val Ala Ile Cys Lys Glu Thr Arg Cys Glu Thr Pro Leu Glu Phe
      435              440              445
Leu Asn Gly Lys Ala Asp Ile Glu Asn Arg Thr Thr Gly Pro Asn Val
      450              455              460
Val Tyr Ser Cys Asn Arg Gly Tyr Ser Leu Glu Gly Pro Ser Glu Ala
      465              470              475              480
His Cys Thr Glu Asn Gly Thr Trp Ser His Pro Val Pro Leu Cys Lys
      485              490              495
Pro Asn Pro Cys Pro Val Pro Phe Val Ile Pro Glu Asn Ala Leu Leu
      500              505              510
Ser Glu Lys Glu Phe Tyr Val Asp Gln Asn Val Ser Ile Lys Cys Arg
      515              520              525
Glu Gly Phe Leu Leu Gln Gly His Gly Ile Ile Thr Cys Asn Pro Asp
      530              535              540
Glu Thr Trp Thr Gln Thr Ser Ala Lys Cys Glu Lys Ile Ser Cys Gly
      545              550              555              560
Pro Pro Ala His Val Glu Asn Ala Ile Ala Arg Gly Val His Tyr Gln
      565              570              575
Tyr Gly Asp Met Ile Thr Tyr Ser Cys Tyr Ser Gly Tyr Met Leu Glu
      580              585              590
Gly Phe Leu Arg Ser Val Cys Leu Glu Asn Gly Thr Trp Thr Ser Pro
      595              600              605
Pro Ile Cys Arg Ala Val Cys Arg Phe Pro Cys Gln Asn Gly Gly His
      610              615              620
Leu Pro Thr Pro Lys Cys Leu Phe Leu Ser Arg Gly Leu Asp Gly Ala
      625              630              635              640
Pro Leu

```

<210> 5773

<211> 579

<212> DNA

<213> Homo sapiens

<400> 5773

```

nnacgcgtga ggggcctgag gcgagcgggt agagcgtctc ccggaaggat gggccggtct
60
cggagccgga gctcgtcccg ctccaagcac accaagagca gcaagcaca caagaagcgc
120
agccggtccc ggtcgcgac ccgggacaag gagcgcgtgc ggaagcgttc caaatctcgg
180
gaaagtaaac ggaaccggcg gcgggagtcg cggtcccggt cgcgctccac caacacggcc
240
gtgtcccgcc gcgagcggga ccgggagcgc cctcgtcccc gcccgaccgc atcgacatct
300

```

tcgggagcag ggtgagcaag cgcagcagcc tggacgagaa gcagaagcga gaggaggagg
 360
 agaagaaaagc ggagttcagc cggcagcgaa aaattcgaca gcaagaaata gaagaaaaac
 420
 tcattcgagga agaacacagca cgaagagtag aagaattggt agcaanaaag ggtggaggaa
 480
 gaactggaga aaaggaagga tgaattgaa cgagaagttc tccgaagggt ggaggaagcc
 540
 aaacgcatca tggaaaagca gttgctcgaa gaactcag
 579

<210> 5774

<211> 104

<212> PRT

<213> Homo sapiens

<400> 5774

Xaa Arg Val Arg Gly Leu Arg Arg Ala Val Arg Ala Ser Pro Gly Arg
 1 5 10 15
 Met Gly Arg Ser Arg Ser Arg Ser Ser Arg Ser Lys His Thr Lys
 20 25 30
 Ser Ser Lys His Asn Lys Lys Arg Ser Arg Ser Arg Ser Arg
 35 40 45
 Asp Lys Glu Arg Val Arg Lys Arg Ser Lys Ser Arg Glu Ser Lys Arg
 50 55 60
 Asn Arg Arg Arg Glu Ser Arg Ser Arg Ser Thr Asn Thr Ala
 65 70 75 80
 Val Ser Arg Arg Glu Arg Asp Arg Glu Arg Pro Arg Pro Arg Pro Thr
 85 90 95
 Ala Ser Thr Ser Ser Gly Ala Arg
 100

<210> 5775

<211> 1441

<212> DNA

<213> Homo sapiens

<400> 5775

cgctctctc ccgctcggaagggtcccaagg tgagacacct tcagcaggtc tcagggaaga
 60
 tggcagccct aggggacatt caggagtccttctgtccc gtccctgtc agtctctcat
 120
 caccggggac acctggaacc cagcaccacg agcctcagct tcacctccat gggcatcaac
 180
 atgcctaagg tgctctccca gccgtccgac ctggatctcc aagacgtaga ggaagtggag
 240
 atcgccagag acaccttctg gcccgactcc gagcccaagc cggagcaggc tccacgtct
 300
 cctggctctc agggccctga cgagggggcg ggcggggcg tgccacctc cgtgaggagc
 360
 ctccccgca gggcccggtg cagcgccgag ttccggcctg aatccagcgc ggaagcggcg
 420
 gcgggccagc cgcctggggc cgtcccttgc gccagccgc ggggcgcctg gcgcgtgagc
 480

ctctgtgcagc aagcagcggc cgggcccagc ggtgcgccc agcgggctgc cgagctggga
 540
 gtcaaacttcg gtcggagccg gcagggcagc gcgcggggga ccaagccgca cagggtgcag
 600
 gcctgcggca agagtttcaa gtataactcg ctgctcctga agcaccagcg catccacacg
 660
 ggcgagaagc cctacgcctg ccacgagtgcc ggcaagtgtt tcgccgcagc ttccgcgttc
 720
 atccagcacc agcgcaccca cagcggcgagc aagccctacg cctgccccga gtgcagcaag
 780
 accttcacgc gcagctccaa cctcatcaag caccagggtca tccacagcgg cgagcggccc
 840
 ttccgctgcg gcgactcggc caaactgttc cgcgcgagct tcgcgctcct ggagcacgcg
 900
 cgcgtgcaca gcggcgagaa gccctacgag tgctccgact gcggcaagtg ctccgcggcg
 960
 cgctcgcaact tcttcgggca caaccgcaca cacacgggcy agaagcccta cactgcctc
 1020
 gactcgggca agagcttcag ccacagctcg cacctcatca agcaccagcg caccacccgt
 1080
 ggcggtgcggc cctacgcctg ccggttgtgt ggcaagagct tcagccggcg ctccaacctg
 1140
 caccggcacg agaagatcca caccaccggg cccaaggccc tggccatgct gatgtcgggg
 1200
 gcggcgccggc cgggggctct gccacacccc ccaccgcctc ccacatagga ggccagga
 1260
 ggggggagcgg ggcgccccagg gccactggaa cagcccccact ggagtcaagg ctccgaggga
 1320
 ggagagaggg gctcgggaag ggagctgggg cggtgagggc atggggtgag gcatggcgat
 1380
 gggggaggggc gagggcgaga aaggcgaggc actctgcgaa ttaaaggcct tggacttgaa
 1440
 a
 1441

<210> 5776

<211> 359

<212> PRT

<213> Homo sapiens

<400> 5776

Met Gly Ile Asn Met Pro Lys Val Leu Ser Gln Pro Ser Asp Leu Asp
 1 5 10 15
 Leu Gln Asp Val Glu Glu Val Glu Ile Gly Arg Asp Thr Trp Pro
 20 25 30
 Asp Ser Glu Pro Lys Pro Glu Gln Ala Pro Arg Ser Pro Gly Ser Gln
 35 40 45
 Ala Pro Asp Glu Gly Ala Gly Gly Ala Leu Arg Thr Ser Val Arg Ser
 50 55 60
 Leu Pro Arg Arg Ala Arg Cys Ser Ala Gly Phe Gly Pro Glu Ser Ser
 65 70 75 80
 Ala Glu Arg Pro Ala Gly Gln Pro Pro Gly Ala Val Pro Cys Ala Gln
 85 90 95
 Pro Arg Gly Ala Trp Arg Val Thr Leu Val Gln Gln Ala Ala Gly

100 105 110
 Pro Glu Gly Ala Pro Glu Arg Ala Ala Glu Leu Gly Val Asn Phe Gly
 115 120 125
 Arg Ser Arg Gln Gly Ser Ala Arg Gly Thr Lys Pro His Arg Cys Glu
 130 135 140
 Ala Cys Gly Lys Ser Phe Lys Tyr Asn Ser Leu Leu Lys His Gln
 145 150 155 160
 Arg Ile His Thr Gly Glu Lys Pro Tyr Ala Cys His Glu Cys Gly Lys
 165 170 175
 Cys Phe Ala Ala Ser Arg Phe Ile Gln His Gln Arg Ile His Ser
 180 185 190
 Gly Glu Lys Pro Tyr Ala Cys Pro Glu Cys Ser Lys Thr Phe Thr Arg
 195 200 205
 Ser Ser Asn Leu Ile Lys His Gln Val Ile His Ser Gly Glu Arg Pro
 210 215 220
 Phe Ala Cys Gly Asp Cys Gly Lys Leu Phe Arg Arg Ser Phe Ala Leu
 225 230 235 240
 Leu Glu His Ala Arg Val His Ser Gly Glu Lys Pro Tyr Glu Cys Ser
 245 250 255
 Asp Cys Gly Lys Cys Phe Arg Gly Arg Ser His Phe Phe Arg His Asn
 260 265 270
 Arg Thr His Thr Gly Glu Lys Pro Tyr His Cys Leu Asp Cys Gly Lys
 275 280 285
 Ser Phe Ser His Ser Ser His Leu Ile Lys His Gln Arg Thr His Arg
 290 295 300
 Gly Val Arg Pro Tyr Ala Cys Pro Leu Cys Gly Lys Ser Phe Ser Arg
 305 310 315 320
 Arg Ser Asn Leu His Arg His Glu Lys Ile His Thr Thr Gly Pro Lys
 325 330 335
 Ala Leu Ala Met Leu Met Leu Gly Ala Ala Ala Ala Gly Ala Leu Ala
 340 345 350
 Thr Pro Pro Pro Ala Pro Thr
 355

<210> 5777

<211> 1431

<212> DNA

<213> Homo sapiens

<400> 5777

ggaaggctcg cctgggagct catacctggc tggggccgag gattggetgt tccgggggcta
 60
 gggagcgctt tctcccgga accgcgctg tgacccaagt ggcccggacc agtttggggc
 120
 tgcgtgcggc ctgcctcaag caaccaggta cgtaggtcgg cggcccagct cggcgctgcg
 180
 gtgggagccg gaggggcaca gtcagagccg ggggtgccag gggacgcgac cgccagatcc
 240
 acttaggacc ccgtcgttct gcgaagcggc cacgtctgag tcccggggcc tctcgtgct
 300
 gcagatgtcg ccttaggacc tcggccagga taccctctgc catgctcttg tctgcccgt
 360
 gatcacgcac tggcccttgt aagcaccttc gcagcaggaa gccagagct gcgcctgccc
 420

ttcttgaagg ctgtggaaga gggttgagtg ggcgcattctt agcttgcccc atccccattt
 480
 gaggtctgtc ggagctgccc ttcagtgtga gcattccaaa tgggtacccc agcctcggtg
 540
 gtcagtgagc cacccecttg gcaggccccc attgaggccc ggggcccga aagcggcctg
 600
 gccaacatct tccaggagcg cgagctgctg cagatccaa cctgttttca acgcagcggg
 660
 gaccagctgg ccgagggaac ggcacagatc atctggggaat gtgcagggga ccaccgtgtg
 720
 gctgaggccc tcaagaggct gcgcaggaag agggccccc ggcagaaacc cctggggcca
 780
 ctgctacac cactgcagcc gcctcagaat cctggagccc cactctgcac tggccaaccc
 840
 acagagtgtc acagagacag cctccagtga gcagtatctg cactctagga agaaaagtgc
 900
 caggatccgc cggaactgga ggaagtcagg ccccaaacg tactccacc agatcagaca
 960
 ctgattccagg gaaagagcca ggaatggcag tgtcttccct ctgccccaaa ggctctggga
 1020
 ggtgaaggaa gagagacttt aggcagcag cccaaagggg taaatgaaag caagaggctg
 1080
 ctgccactga cctgctcat tcagaacaag actggatgct tctgttgagc tctcattat
 1140
 gtgggaccca tctctacca aaatgaggag agacagtac tgttctgccc acagtctctc
 1200
 ccagtcctaac actattcctg ggctgcata tattccctg ggagcaaatg gacaggcact
 1260
 tagatgcagc atttccacc tcattgctact aatcatctac ctgctactac tgtaaacact
 1320
 ggttccagca gcctgttcca cccccaca ccatcaggat agcacaggga aactgtagtt
 1380
 taagtggcaa ataaaaacat ttgcatcaaa aaaaaaaaaa aaaaaaaaaa a
 1431

<210> 5778

<211> 164

<212> PRT

<213> Homo sapiens

<400> 5778

Met	Leu	Thr	Leu	Lys	Gly	Ser	Ser	Asp	Arg	Pro	Gln	Met	Gly	Met	Gly
1				5				10					15		
Gln	Ala	Lys	Met	Arg	Pro	Leu	Gln	Pro	Leu	Pro	Gln	Pro	Ser	Glu	Arg
			20					25					30		
Ala	Gly	Ala	Ala	Leu	Gly	Phe	Leu	Leu	Arg	Arg	Cys	Leu	Gln	Gly	Pro
			35				40				45				
Val	Gly	Asp	His	Gly	Gln	His	Lys	Ser	Met	Ala	Glu	Gly	Ile	Leu	Ala
			50			55				60					
Glu	Val	Leu	Arg	Arg	His	Leu	Gln	His	Glu	Glu	Ala	Pro	Gly	Leu	Arg
					70				75					80	
Arg	Gly	Arg	Phe	Ala	Glu	Arg	Arg	Gly	Pro	Lys	Trp	Ile	Trp	Arg	Ser
				85				90					95		
Arg	Pro	Ala	Gly	Thr	Pro	Ala	Leu	Thr	Val	Ala	Leu	Arg	Leu	Pro	Pro

```

          100              105              110
Gln Arg Arg Ala Gly Pro Pro Thr Tyr Val Pro Gly Cys Leu Arg Gln
          115              120              125
Ala Ala Arg Ser Pro Lys Leu Val Arg Ala Thr Trp Val Thr Ala Ala
          130              135              140
Val Pro Gly Arg Lys Arg Ser Leu Ala Pro Glu Gln Pro Ile Leu Gly
          145              150              155              160
Pro Ser Gln Val

```

<210> 5779
 <211> 371
 <212> DNA
 <213> Homo sapiens

```

<400> 5779
ctcttgagac gtgtggaggg aaggaagggg agaacccatg atctacccca gaggcattgga
60
cgggagagag ggggtatttc agccttgtct ggcateccctt gtgtctgcnt gagsgtgtgt
120
gcacacggga atgtgtgcgg gtgtgtgtgc gtgcacgcag ctgtgtgtgtg atgtgcantc
180
gtgtgtgggt gtgtaggtgt gtgtgggtgt gtgcaccagt gcaggtgtgc atgggtgtgt
240
acagggtgggt gtgtgtatgt gtgtgggggt gtgcccattc gtgcaggtgt gtgggtgtgc
300
agggttcnca gcctgtgtgt gsgtgtgncc ccgtgtgtac ccctgtggag gtgtgtgggt
360
gtgtgcagtg t
371

```

<210> 5780
 <211> 123
 <212> PRT
 <213> Homo sapiens

```

<400> 5780
Leu Leu Arg Arg Val Glu Gly Arg Lys Gly Arg Thr His Asp Leu Pro
1      5      10      15
Gln Arg His Gly Arg Glu Arg Gly Val Ile Ser Ala Leu Ser Gly Ile
20     25     30
Pro Cys Val Cys Xaa Arg Val Cys Ala His Gly Asn Val Cys Gly Cys
35     40     45
Val Cys Val His Ala Ala Val Cys Gly Cys Ala Xaa Val Cys Gly Cys
50     55     60
Val Gly Val Cys Gly Cys Val His Gln Cys Arg Cys Ala Trp Val Cys
65     70     75     80
Thr Gly Gly Cys Val Tyr Val Cys Gly Gly Val Pro Ile Cys Ala Gly
85     90     95
Val Trp Val Cys Arg Val Xaa Cys Leu Cys Val Gly Val Xaa Pro Cys
100    105    110
Val Pro Leu Trp Arg Cys Val Gly Val Cys Ser
115    120

```

<210> 5781
 <211> 845
 <212> DNA
 <213> Homo sapiens

<400> 5781
 ggggttcogt gccccaaaat cgagggagacc gtgggcttgg ggtccggatc gcggcccgcg
 60
 ggcgtcggcg tgcgggtgtca tttctcggtt gtaaatgtct ccaccttggc cgatttcaag
 120
 ccaccaggtg aggatggcac tgcaacatct tccactgagg ctccagctgc cctctcaggt
 180
 acatcaggcg ctggancgtc ctctcctcca ggagggccag gactcggccc cctgccagcc
 240
 ccggaagcat tgcagccagg agtgcagcgt gggggccctg caggccatgg ccaggcccca
 300
 gcgccaccag caccaggtca ggctggaagc cataggccag gggcagcacc aagcccaaga
 360
 tgcagctcag gaaaccaccg gtcactactg gcagtggcgt ggagacatgg aacatggata
 420
 gggcagccgc ctcttgcgc ctgatgttca gccacagact cctcccgtca tggcgaggtt
 480
 ctggaggccg gtccagctgt cccaggggcca cgcacagcag cctggaagaa gagctggcct
 540
 caggacaggt gtctcatgtt tccagagtcc attcccagaa ctctctgtgc ttggccagcc
 600
 aggatagggg tgcacacagg tcttgccgtc agaggctcag gatggccaag tgaggcttac
 660
 ctctgggtcg cgtgggacag gcctctccga acagccacat ccagggtggc tgctgcagca
 720
 gaggctggag tggtgtctat accactgttc acctgtggga tgaataaaca gtggagaatg
 780
 aggcaccaac caactcccaa gccaggtaaa cagatccaca gttcccttca ttcggtgtgt
 840
 ctctg
 845

<210> 5782
 <211> 147
 <212> PRT
 <213> Homo sapiens

<400> 5782
 Gly Val Pro Cys Pro Lys Ile Glu Gly Ala Val Gly Leu Gly Ser Gly
 1 5 10 15
 Ser Arg Pro Arg Gly Ala Gly Val Arg Cys His Phe Cys Gly Val Asn
 20 25 30
 Ala Pro Thr Leu Ala Asp Phe Lys Pro Pro Gly Glu Asp Gly Thr Ala
 35 40 45
 Thr Ser Ser Thr Glu Ala Pro Ala Ala Leu Ser Gly Thr Ser Gly Pro
 50 55 60
 Gly Xaa Ser Ser Pro Pro Gly Gly Pro Gly Leu Gly Pro Leu Pro Ala
 65 70 75 80
 Pro Glu Ala Leu Gln Pro Gly Val Gln Arg Gly Gly Pro Ala Gly His

```

      85              90              95
Gly Gln Ala Pro Ala Pro Pro Ala Pro Gly Gln Ala Gly Ser His Arg
      100              105              110
Pro Gly Ala Ala Pro Ser Pro Arg Cys Ser Ser Gly Asn His Arg Ser
      115              120              125
Ser Leu Ala Val Ala Trp Arg His Gly Thr Trp Ile Gly Gln Pro Pro
      130              135              140
Pro Cys Pro
145

<210> 5783
<211> 1839
<212> DNA
<213> Homo sapiens

<400> 5783
gtgggagcgg ccatggaccg ctctggttgg accagcgccc tcttgagat caacgagacc
60
ctgggtgacc agcagcgagg ggtgcgaatc tacgatggcg aggagaagat aaaatttgat
120
gctgggactc tccttcttag tacacaccga ctgatttggg gagatcagaa aaatcatgag
180
tglttgcatt ccattctcct tteccaaatt gtgttcattg aagaacaggc ggctggaatt
240
gggaagagtg ccaaaatagt ggttcattct caccaggctc ctcttaacaa agaacctggc
300
ccattccaga gtagtaagaa ctctacatc aaactctcct tcaaagaaca tggccagatt
360
gagttttaca ggcgtttatc agaggaaatg acacaaagaa gatgggagaa tatgccagtt
420
tcccagtcac tacaacaaa tagaggaccg cagccaggaa gaataagggc gttaggaatt
480
gtagggtatt aaaggaaact ggaagaaaaa agaaaagaaa ctgacaaaaa catttctgag
540
gcctttgaag acctcagcaa actaatgac aaggctaagg aatggtgga attatcaaaa
600
tcaattgcta ataaaaattaa agacaaacaa ggtgacatca cagaagatga gaccatcagg
660
tttaaatcct acttgctgag catgggaata gctaaccagg ttaccagaga aacctacggc
720
tcaggcacac agtaccacat gcagctggcc aaacaactgg ctggaatatt gcaggctgct
780
ttagggaac gagggggaat aatgtcactc acggagggtg actgcttagt aaaccgagct
840
cgaggaaatg aattgtctc accagaagat ttagtgaatg cgtgcaagat gctggaagca
900
ctgaaattac ctctcaggct ccgtgtgttt gacagtggcg tcatggtaat tgagcttcag
960
tctcacaagg aagaggaaat ggtggcctcg gccctggaga cagtttcaga aaagggaacc
1020
ctaacatcag aagagtgttc taagcttggt ggaatgtctg tcctctagc caaagaaagg
1080
ttgtgcttg cagagaagat gggccatctt tgccgtgatg actcagtgga aggcctgcgt
1140

```

ttttacccaa atttatttat gacacagagc taagggtttt gtatttaaaa tcctttttgt
 1200
 ccatatgctt gcgtcatgta gaggttggtat gacattgagc taagagataa accccgatca
 1260
 attgagaatt tattggaact tcacagtgc atgtaaatct cttttaattt ctcccaaat
 1320
 atgggtccagg aaattttatt agtatacgca taggaaaatt cagaaaagtg aatgcccaata
 1380
 tgaatttaaa atcatgctat agtgcagaac cctcagagtt taacttggaa tatatggag
 1440
 tttaacttga tectcaaact taatcatttt ataaagaagg gaatttagtt ttgcagagaa
 1500
 taaaaagaga agttgcatgt tcagacaggt tagattatta ttttgggtga actgaaattc
 1560
 actgattgca catgacaatg ttgggacaaa atatactgca gcattgctata tgaggctcct
 1620
 ccccgaggct tttagaagca gtcatagaca tgtcttcaac ataccataa aaataccttt
 1680
 aaaaatgaaa taattttatt tgacacatta tttatatata ttctatctag gtttctcttt
 1740
 gtttttttta aagtgatgat ttcattggact gggcatttaa aagaaatggc aactgtggtc
 1800
 catttttggt ttttccaaat gctgtggaat ttttggaaa
 1839

<210> 5784

<211> 386

<212> PRT

<213> Homo sapiens

<400> 5784

Met	Asp	Arg	Phe	Val	Trp	Thr	Ser	Gly	Leu	Leu	Glu	Ile	Asn	Glu	Thr
1				5					10					15	
Leu	Val	Ile	Gln	Gln	Arg	Gly	Val	Arg	Ile	Tyr	Asp	Gly	Glu	Glu	Lys
			20					25					30		
Ile	Lys	Phe	Asp	Ala	Gly	Thr	Leu	Leu	Leu	Ser	Thr	His	Arg	Leu	Ile
			35				40					45			
Trp	Arg	Asp	Gln	Lys	Asn	His	Glu	Cys	Cys	Met	Ala	Ile	Leu	Leu	Ser
			50			55					60				
Gln	Ile	Val	Phe	Ile	Glu	Glu	Gln	Ala	Ala	Gly	Ile	Gly	Lys	Ser	Ala
			65		70					75				80	
Lys	Ile	Val	Val	His	Leu	His	Pro	Ala	Pro	Pro	Asn	Lys	Glu	Pro	Gly
				85					90				95		
Pro	Phe	Gln	Ser	Ser	Lys	Asn	Ser	Tyr	Ile	Lys	Leu	Ser	Phe	Lys	Glu
			100					105					110		
His	Gly	Gln	Ile	Glu	Phe	Tyr	Arg	Arg	Leu	Ser	Glu	Glu	Met	Thr	Gln
			115				120				125				
Arg	Arg	Trp	Glu	Asn	Met	Pro	Val	Ser	Gln	Ser	Leu	Gln	Thr	Asn	Arg
			130			135					140				
Gly	Pro	Gln	Pro	Gly	Arg	Ile	Arg	Ala	Val	Gly	Ile	Val	Gly	Ile	Glu
			145		150					155				160	
Arg	Lys	Leu	Glu	Glu	Lys	Arg	Lys	Glu	Thr	Asp	Lys	Asn	Ile	Ser	Glu
			165					170					175		
Ala	Phe	Glu	Asp	Leu	Ser	Lys	Leu	Met	Ile	Lys	Ala	Lys	Glu	Met	Val

```

                180                185                190
Glu Leu Ser Lys Ser Ile Ala Asn Lys Ile Lys Asp Lys Gln Gly Asp
195                200                205
Ile Thr Glu Asp Glu Thr Ile Arg Phe Lys Ser Tyr Leu Leu Ser Met
210                215                220
Gly Ile Ala Asn Pro Val Thr Arg Glu Thr Tyr Gly Ser Gly Thr Gln
225                230                235
Tyr His Met Gln Leu Ala Lys Gln Leu Ala Gly Ile Leu Gln Val Pro
245                250                255
Leu Glu Glu Arg Gly Gly Ile Met Ser Leu Thr Glu Val Tyr Cys Leu
260                265                270
Val Asn Arg Ala Arg Gly Met Glu Leu Leu Ser Pro Glu Asp Leu Val
275                280                285
Asn Ala Cys Lys Met Leu Glu Ala Leu Lys Leu Pro Leu Arg Leu Arg
290                295                300
Val Phe Asp Ser Gly Val Met Val Ile Glu Leu Gln Ser His Lys Glu
305                310                315
Glu Glu Met Val Ala Ser Ala Leu Glu Thr Val Ser Glu Lys Gly Ser
325                330                335
Leu Thr Ser Glu Glu Phe Ala Lys Leu Val Gly Met Ser Val Leu Leu
340                345                350
Ala Lys Glu Arg Leu Leu Leu Ala Glu Lys Met Gly His Leu Cys Arg
355                360                365
Asp Asp Ser Val Glu Gly Leu Arg Phe Tyr Pro Asn Leu Phe Met Thr
370                375                380
Gln Ser
385

```

<210> 5785

<211> 785

<212> DNA

<213> Homo sapiens

<400> 5785

```

tttttttttt ttttgacagt ttctccactt tattagcctg gagctctccc ctgccagccc
60
caggggctgg tcgctgggtcc ctgggcacag tgagcagggc tgaggtcaga cgggttcggc
120
ccttggccat ggcagcttgg ttgggacagc cgggccaagg gaaaaaaagg tgcaaaagtc
180
caaatgctgg cacttcaggt gtggccggca cccagccagg cgcagtgggt gggcaggggc
240
ccatgcttct ctctggcgca caggtcggcc gtgtagcagc gccccctccc agcagccact
300
aggaacagct ggtgattctc gccaggaaact gctgcgccca ccaactctct aggtcaatgg
360
gcacaaagt ctgcagccgg ggattggggg tcctctccac gtactgcaca ggccctggcc
420
cgccctcacc ggttggggca ccatccagct gctgttgac ctgctgccag gcttcggaca
480
caaaaggac attctccttg tgggccagtg ttaggtctc ctgggtcccc tggaggagtg
540
gggacttgga ggggtcccg cggcgattca cagattgaa cacaagcctt ggccctgcac
600

```

tcgacagggg ccaggggtccc agcggctgcg cgagagctgc gcccgctggg gctgcaagggt
 660
 cggcgggcgcg ggctgcccgc ttttcaggag ctccctggagc tggcccttca cctgctgctg
 720
 cgtgagacct gtgcggctgc gcgaccaatt tgctgggccc gttgatgatg gtgtacatgg
 780
 cgcgcc
 785

<210> 5786

<211> 159

<212> PRT

<213> Homo sapiens

<400> 5786

Met Tyr Thr Ile Asn Gly Pro Ser Lys Leu Val Ala Gln Pro His
 1 5 10 15
 Arg Ser His Ala Ala Ala Gly Glu Gly Pro Ala Pro Gly Ala Pro Glu
 20 25 30
 Lys Pro Ala Ala Arg Ala Ala Asp Leu Ala Ala Pro Ala Gly Ala Ala
 35 40 45
 Leu Ala Gln Pro Leu Gly Pro Trp Pro Leu Ser Ser Ala Gly Pro Arg
 50 55 60
 Leu Val Phe Asn Arg Val Asn Arg Arg Arg Asp Pro Ser Lys Ser Pro
 65 70 75 80
 Ser Leu Gln Gly Thr Gln Glu Thr Tyr Thr Leu Ala His Lys Glu Asn
 85 90 95
 Val Arg Phe Val Ser Glu Ala Trp Gln Gln Val Gln Gln Gln Leu Asp
 100 105 110
 Gly Gly Pro Ala Gly Glu Gly Gly Pro Arg Pro Val Gln Tyr Val Glu
 115 120 125
 Arg Thr Pro Asn Pro Arg Leu Gln Asn Phe Val Pro Ile Asp Leu Asp
 130 135 140
 Glu Trp Trp Ala Gln Gln Phe Leu Ala Arg Ile Thr Ser Cys Ser
 145 150 155

<210> 5787

<211> 1683

<212> DNA

<213> Homo sapiens

<400> 5787

nnngctccag tccagtcgtg cagnggngng ntctttcttc cgctcaagtc caggaaacggt
 60
 tccccgggctc ccaccgtctc ggnangccca cnggcctggg ccaaagtcg cgaacggaag
 120
 ccngggcgag gaggattctg ggagttggag gccgaggtcg cgaccngcag gcgcaaacct
 180
 gccctctggg tgagggtgt aagtggcgcg attcggcgca gcgccccgat ggaacctctc
 240
 ggctctgtga gggggccctt gcaagattcc agctggtatg agccttctgc agagctagtg
 300
 cagactagga tggtgtatc actaacagca gctgaaactc tggcccttca ggggtacacag
 360

ggacaagaga agatgatgat gatgggacca aaggaagagg aacagtcttg tgagtatgag
 420
 accaggctac ctgggaacca ctctaccagt caagagatct tccgccaacg cttcaggcat
 480
 ctccgctacc agggagactcc tggccccgg gaggccttga gccaaactacg agtactctgc
 540
 tgtgagtggc tgaggccaga gaaacacacg aaggagcaga tcctggagtt cctgggtctg
 600
 gaacaattct tgaccatcct gcctgaggag ctccaatcct ggggtcgggg acatcacccct
 660
 aagagtggag agggaggctgt gactgtgctg gaggatttag agaaaggact tgaaccagag
 720
 ccgcaggctc caggccctgc acatggacct gcacaggaa agccatggga gaagaaggaa
 780
 tctctgggag cagcccagga agcactgagc atccagctcc agcctaagga gaccagcct
 840
 ttcccaaaga gtgaacaggt atatttcat tttctgtcag ttgttacaga agatggccca
 900
 gagcccaagg acaaggatc attgccaca ccaccatta ctgaagtggga atcacaggtg
 960
 ttctcagaaa aacttgctac tgacacctct acatttgaag ctaccttga gggtagctta
 1020
 gaactgcagc agagaaaatcc caaagcggag agactgaggt ggtccccctgc ccaggaggaa
 1080
 agtttcaggc agatggttgt catccataag gaaattccca cagggaagaa agaccatgaa
 1140
 tgtagtgaat gtggtaaaac cttcatattat aactcacatc ttgttgtcca ccagagagtt
 1200
 cattctggag agaaccctta taagtgtagt gactgtggga aaactttcaa acagagctca
 1260
 aaacctcggtc agcatcagag aattcataca ggagagaaac cttcgaatg taatgaatgt
 1320
 gggaaggcct tcagatgggg tgctcatctt gttcagcatc agaggattca ctcaggagag
 1380
 aagccctatg agtgtaatga gtgtgggaag gcccttagtc aaagctcata tctaagttag
 1440
 catcggagaa ttcacagtgg agagaaacct tttatatgta aagaatgtgg gaaagcttat
 1500
 ggatggtgct cagagctcat tagacatcgg agagtctcat ccagaaaaga gccttcccat
 1560
 tgaattgaag gggagaacgt ctccagacag aattctacat cggctctaac tacttttaga
 1620
 ctggatccca taaaagttaa aagttcctta aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa
 1680
 aaa
 1683

<210> 5788

<211> 417

<212> PRT

<213> Homo sapiens

<400> 5788

Met Ala Val Ser Leu Thr Ala Ala Glu Thr Leu Ala Leu Gln Gly Thr

1 5 10 15
 Gln Gly Gln Glu Lys Met Met Met Met Gly Pro Lys Glu Glu Glu Gln
 20 25 30
 Ser Cys Glu Tyr Glu Thr Arg Leu Pro Gly Asn His Ser Thr Ser Gln
 35 40 45
 Glu Ile Phe Arg Gln Arg Phe Arg His Leu Arg Tyr Gln Glu Thr Pro
 50 55 60
 Gly Pro Arg Glu Ala Leu Ser Gln Leu Arg Val Leu Cys Cys Glu Trp
 65 70 75 80
 Leu Arg Pro Glu Lys His Thr Lys Glu Gln Ile Leu Glu Phe Leu Val
 85 90 95
 Leu Glu Gln Phe Leu Thr Ile Leu Pro Glu Glu Leu Gln Ser Trp Val
 100 105 110
 Arg Gly His His Pro Lys Ser Gly Glu Glu Ala Val Thr Val Leu Glu
 115 120 125
 Asp Leu Glu Lys Gly Leu Glu Pro Glu Pro Gln Val Pro Gly Pro Ala
 130 135 140
 His Gly Pro Ala Gln Glu Glu Pro Trp Glu Lys Lys Glu Ser Leu Gly
 145 150 155 160
 Ala Ala Gln Glu Ala Leu Ser Ile Gln Leu Gln Pro Lys Glu Thr Gln
 165 170 175
 Pro Phe Pro Lys Ser Glu Gln Val Tyr Leu His Phe Leu Ser Val Val
 180 185 190
 Thr Glu Asp Gly Pro Glu Pro Lys Asp Lys Gly Ser Leu Pro Gln Pro
 195 200 205
 Pro Ile Thr Glu Val Glu Ser Gln Val Phe Ser Glu Lys Leu Ala Thr
 210 215 220
 Asp Thr Ser Thr Phe Glu Ala Thr Ser Glu Gly Thr Leu Glu Leu Gln
 225 230 235 240
 Gln Arg Asn Pro Lys Ala Glu Arg Leu Arg Trp Ser Pro Ala Gln Glu
 245 250 255
 Glu Ser Phe Arg Gln Met Val Val Ile His Lys Glu Ile Pro Thr Gly
 260 265 270
 Lys Lys Asp His Glu Cys Ser Glu Cys Gly Lys Thr Phe Ile Tyr Asn
 275 280 285
 Ser His Leu Val Val His Gln Arg Val His Ser Gly Glu Lys Pro Tyr
 290 295 300
 Lys Cys Ser Asp Cys Gly Lys Thr Phe Lys Gln Ser Ser Asn Leu Gly
 305 310 315 320
 Gln His Gln Arg Ile His Thr Gly Glu Lys Pro Phe Glu Cys Asn Glu
 325 330 335
 Cys Gly Lys Ala Phe Arg Trp Gly Ala His Leu Val Gln His Gln Arg
 340 345 350
 Ile His Ser Gly Glu Lys Pro Tyr Glu Cys Asn Glu Cys Gly Lys Ala
 355 360 365
 Phe Ser Gln Ser Ser Tyr Leu Ser Gln His Arg Arg Ile His Ser Gly
 370 375 380
 Glu Lys Pro Phe Ile Cys Lys Glu Cys Gly Lys Ala Tyr Gly Trp Cys
 385 390 395 400
 Ser Glu Leu Ile Arg His Arg Arg Val His Ala Arg Lys Glu Pro Ser
 405 410 415
 His

<210> 5789
 <211> 1201
 <212> DNA
 <213> Homo sapiens

<400> 5789
 nngcgccgc agcctgagcc agggccccct ccctcgtag gaccggggca gcaagcaggc
 60
 cgggggcagg tccgggcacc caccatgcga ggcgagctct ggctcctggt gctggtgctc
 120
 aggggagcgtg cccgggcgct gagccccag cccggagcag gtcacgatga gggcccaggc
 180
 tctggatggg ctgccaaagg gaccgtgcgg ggctggaacc ggagagcccg agagagccct
 240
 gggcatgtgt cagagccgga caggaccag ctgagccagg acctgggtgg gggcaccctg
 300
 gccatggaca cgctgccaga taacaggacc aggggtgggtg aggacaacca cagctattat
 360
 gtgtccgctc tctatggccc cagcgagccc cacagccggg aactgtgggt agatgtggcc
 420
 gaggccaaac ggagccaagt gaagatccac acaatactct ccaacacca cggcaggct
 480
 tcgagagtgg tcttgtcctt tgatttcctt ttctacgggc atcctctgcg gcagatcacc
 540
 atagcaactg gaggttcat ctctatgggg gacgtgatcc atcggatgct cacagctact
 600
 cagtatgttg cgccctgat ggccaacttc aaccctggct actccgacaa ctccacagtt
 660
 gtttactttg acaatgggac agtctttgtg gttcagtggtg accacgttta tctccaaggc
 720
 tgggaagaca agggcagttt caccctccag gcagctctgc accatgacgg ccgcatgtgc
 780
 ttgtcctata aagagatccc tatgtctgtc ccggaaatca gctcctccca gcatcctgtc
 840
 aaaaccggcc tatcggatgc ctctcatgatt ctcaatccat ccccgatgtg gccagaatct
 900
 cggcgaagga gcatctttga ataccaccgc atagagctgg accccagcaa ggtcaccagc
 960
 atgtcggccg tggagtccac ccattgccc acctgcctgc agcataggag ctgtgacgcc
 1020
 tgcattgctc cagacctgac ctccaactgc agctgggtgc atgtcctcca gagatgctcc
 1080
 agtggccttg accgctatcg ccaggagtgg atggactatg gctgtgcaca ggaggcagag
 1140
 ggcaggatgt gcgaggactt ccaggatgag gaccacgact cagcctcccc tgacactttc
 1200
 t
 1201

<210> 5790
 <211> 400
 <212> PRT
 <213> Homo sapiens

<400> 5790

Xaa Arg Pro Gln Pro Glu Pro Gly Pro Pro Pro Ser Ser Gly Pro Gly
 1 5 10 15
 Gln Gln Ala Gly Arg Gly Gln Val Arg Ala Pro Thr Met Arg Gly Glu
 20 25 30
 Leu Trp Leu Leu Val Leu Val Leu Arg Glu Ala Ala Arg Ala Leu Ser
 35 40 45
 Pro Gln Pro Gly Ala Gly His Asp Glu Gly Pro Gly Ser Gly Trp Ala
 50 55 60
 Ala Lys Gly Thr Val Arg Gly Trp Asn Arg Arg Ala Arg Glu Ser Pro
 65 70 75 80
 Gly His Val Ser Glu Pro Asp Arg Thr Gln Leu Ser Gln Asp Leu Gly
 85 90 95
 Gly Gly Thr Leu Ala Met Asp Thr Leu Pro Asp Asn Arg Thr Arg Val
 100 105 110
 Val Glu Asp Asn His Ser Tyr Tyr Val Ser Arg Leu Tyr Gly Pro Ser
 115 120 125
 Glu Pro His Ser Arg Glu Leu Trp Val Asp Val Ala Glu Ala Asn Arg
 130 135 140
 Ser Gln Val Lys Ile His Thr Ile Leu Ser Asn Thr His Arg Gln Ala
 145 150 155 160
 Ser Arg Val Val Leu Ser Phe Asp Phe Pro Phe Tyr Gly His Pro Leu
 165 170 175
 Arg Gln Ile Thr Ile Ala Thr Gly Gly Phe Ile Phe Met Gly Asp Val
 180 185 190
 Ile His Arg Met Leu Thr Ala Thr Gln Tyr Val Ala Pro Leu Met Ala
 195 200 205
 Asn Phe Asn Pro Gly Tyr Ser Asp Asn Ser Thr Val Val Tyr Phe Asp
 210 215 220
 Asn Gly Thr Val Phe Val Val Gln Trp Asp His Val Tyr Leu Gln Gly
 225 230 235 240
 Trp Glu Asp Lys Gly Ser Phe Thr Phe Gln Ala Ala Leu His His Asp
 245 250 255
 Gly Arg Ile Val Phe Ala Tyr Lys Glu Ile Pro Met Ser Val Pro Glu
 260 265 270
 Ile Ser Ser Ser Gln His Pro Val Lys Thr Gly Leu Ser Asp Ala Phe
 275 280 285
 Met Ile Leu Asn Pro Ser Pro Asp Val Pro Glu Ser Arg Arg Arg Ser
 290 295 300
 Ile Phe Glu Tyr His Arg Ile Glu Leu Asp Pro Ser Lys Val Thr Ser
 305 310 315 320
 Met Ser Ala Val Glu Phe Thr Pro Leu Pro Thr Cys Leu Gln His Arg
 325 330 335
 Ser Cys Asp Ala Cys Met Ser Ser Asp Leu Thr Phe Asn Cys Ser Trp
 340 345 350
 Cys His Val Leu Gln Arg Cys Ser Ser Gly Phe Asp Arg Tyr Arg Gln
 355 360 365
 Glu Trp Met Asp Tyr Gly Cys Ala Gln Glu Ala Glu Gly Arg Met Cys
 370 375 380
 Glu Asp Phe Gln Asp Glu Asp His Asp Ser Ala Ser Pro Asp Thr Phe
 385 390 395 400

<210> 5791

<211> 3285

<212> DNA

<213> Homo sapiens

<400> 5791

ntgtacattg tataaactga gtagcattga actgcatttt agaagtatgt catcagaaac
60
aaatcacatt atggaaagga tatacaaatg ccaagtgata tgactctttt ggcattggtg
120
tagcatggtc cattcagctt tcagaatctt tcggaggctc tagtttggtg cctagtacta
180
gttatattttg ttagaacaat ctctcaaaat ttagataatt ttccagttgt atgtctgtca
240
cttttaactc taaagcgtaa gaatcatggt aacctctccc tccccccgcg gtcccccgcg
300
ctccatcttc cgccgcccgc cgagcagctg cggggccgccc accgcccgcg ccgccgtgtc
360
aggctgagtc atcactagag agtgggaaggg gcagcagcag cagagaatcc aaaccctaaa
420
gctgatatca caaagtacca ttctccaag ttgggggctc agagggggagt catcatgagc
480
gatgttacc a ttgtgaaaga aggttggtt cagaagaggg gagaatatat aaaaaactgg
540
aggccaagat acttcctttt gaagacagat ggctcattca taggatataa agagaaacct
600
caagatgtgg atttacctta tcccctcaac aactttttcag tggcaaaatg ccagttaatg
660
aaaacagaac gaccaaagcc aaacacattt ataatcagat gtctccagtg gactactgtt
720
atagagagaa catttcatgt agatactcca gaggaagggg aagaatggac agaagctatc
780
caggctgtag cagacagact gcagaggcaa gaagaggaga gaatgaattg tagtccaact
840
tcacaaattg ataatatagg agagggaagay atggatgcct ctacaaccca tcataaaaga
900
aagacaatga atgattttga ctatttgaaa ctactaggta aaggcatttt tgggaaaggt
960
attttggttc gagagaaggg aagtggaaaa tactatgcta tgaagattct gaagaagaa
1020
gtcattattg caaaggatga agtggcacac actctaactg aaagcagagt attaaagaac
1080
actagacatc ccttttttaac atccttgaaa tcttctctcc agacaaaaa ccgtttgtgt
1140
tttgtgatgg aatatgttaa tgggggcyag ctgtttttcc atttgtcgag agagcgggtg
1200
ttctctgagg accgcacacg ttctctatggt gcagaaattg tctctgcttt ggactatcta
1260
cattccggaa agatttgtga ccgtgatctc aagtgggaga atctaattgt ggacaagaat
1320
ggccacataa aaattacaga ttttggaact tgcaaaagag ggaacacaga tgcagccacc
1380
atgaagacat cctgtggcac tccagaatat ctggcaccag aggtgttaga agataatgac
1440
tatggccgag cagtagactg gtggggccta ggggttgtca tgtatgaaat gatgtgtggg
1500

aggttacctt tctacaacca ggaccatgat aaactttttg aattaatatt aatggaagac
1560
attaaatttc ctggaacact ctcttcagat gcaaaatcat tgcttttcagg gctcttgata
1620
aaggatccaa ataaacgcct tgggtggagga ccagatgatg caaaagaaat tatgagacac
1680
agtttctctt ctggagtaaa ctggcaagat gtatatgata aaaagcttgt acctcctttt
1740
aaacctcaag taacatctga gacagatact agatattttg atgaagaatt tacagctcag
1800
actattacaa taacaccacc tgaaaaatat gatgaggatg gtatggactg catggacaat
1860
gagaggcggc cgcatttccc tcaattttcc tactctgcaa gtggacgaga ataagtctct
1920
ttcattctgc tacttcactg tcatcttcaa ttattactg aaaatgattc ctggacatca
1980
ccagtcctag ctcttacaca tagcagggggc accttcggac atccagagac agccaagggt
2040
cctcacccct cgcacacctt caccctcatg aaaacacaca tacacgcaaa tacactccag
2100
tttttctgtt tgcataaagt tgatatctcag tctaagggtc catgctgttg ctgctactgt
2160
cttactatta tagcaacttt aagaagtaat ttccaacct ttggaagtca tgagccacc
2220
attgttctat tgtgcaccaa ttatcatctt ttgactcttt agtttttccc tcagtgaagg
2280
ctaaatgaga tacactgatt ctaggatcat tttttaactt tctagaagag aaaaactaac
2340
tagactaaga agatttagtt tataaattca gaacaagcaa ttgtggaagg gtggtggcgt
2400
gcatatgtaa agcacatcag atccgtgcgt gaagtaggca tatatcacta agctgtggct
2460
ggaattgatt aggaagcatt tggtagaagg actgaacaac tgttgggata tatatatata
2520
tatataattt ttttttttta aattcctggg ggatactgta gaagaagccc atatcacatg
2580
tggatgtcga gacttcacgg gcaatcatga gcaagtgaac actgttctac caagaactga
2640
aggcatatgc acagtcaagg tcacttaaag ggtcttatga aacaatttga gccagagagc
2700
atcttcccc tgtgcttggg aacctttttt cctctctgac atttatcacc tctgatggct
2760
gaagaatgta gacaggtata atgatactgc ttttcaccaa aatttctaca ccaaggtaaa
2820
caggtgtttg ccttatttaa ttttttactt tcagttctac gtgaattagc tttttctcag
2880
atgttgaaac tttgaatgtc cttttatgat ttgtttata ttgcagtagt atttattttt
2940
tagtgatgag aattgtatgt catgttagca aacgcagctc caacttatat aaaatagact
3000
tactgcagtt acctttgacc catgtgcaag gattgtacac gttgatgaga atcatgcact
3060
ttttctcctc tgttaaaaaa aatgataagg ctctgaaatg gaatatatg gttagaattt
3120

ggctttggga gaagagatgc tgccatttaa ccccttggtg ctgaaaatga gaaaatcccc
 3180
 aactatgcac gccaaaggggt taatgaaaca aatagctgtt gacgtttgct catttaagaa
 3240
 tttgaaacgt tatgatgacc tggcaacaaa aaaaaaaaaa aaaaa
 3285

<210> 5792

<211> 479

<212> PRT

<213> Homo sapiens

<400> 5792

Met	Ser	Asp	Val	Thr	Ile	Val	Lys	Glu	Gly	Trp	Val	Gln	Lys	Arg	Gly
1				5					10					15	
Glu	Tyr	Ile	Lys	Asn	Trp	Arg	Pro	Arg	Tyr	Phe	Leu	Leu	Lys	Thr	Asp
		20					25						30		
Gly	Ser	Phe	Ile	Gly	Tyr	Lys	Glu	Lys	Pro	Gln	Asp	Val	Asp	Leu	Pro
		35					40				45				
Tyr	Pro	Leu	Asn	Asn	Phe	Ser	Val	Ala	Lys	Cys	Gln	Leu	Met	Lys	Thr
		50			55					60					
Glu	Arg	Pro	Lys	Pro	Asn	Thr	Phe	Ile	Ile	Arg	Cys	Leu	Gln	Trp	Thr
65					70					75				80	
Thr	Val	Ile	Glu	Arg	Thr	Phe	His	Val	Asp	Thr	Pro	Glu	Glu	Arg	Glu
				85					90					95	
Glu	Trp	Thr	Glu	Ala	Ile	Gln	Ala	Val	Ala	Asp	Arg	Leu	Gln	Arg	Gln
		100					105						110		
Glu	Glu	Glu	Arg	Met	Asn	Cys	Ser	Pro	Thr	Ser	Gln	Ile	Asp	Asn	Ile
		115					120					125			
Gly	Glu	Glu	Glu	Met	Asp	Ala	Ser	Thr	Thr	His	His	Lys	Arg	Lys	Thr
		130			135					140					
Met	Asn	Asp	Phe	Asp	Tyr	Leu	Lys	Leu	Leu	Gly	Lys	Gly	Thr	Phe	Gly
145					150					155				160	
Lys	Val	Ile	Leu	Val	Arg	Glu	Lys	Ala	Ser	Gly	Lys	Tyr	Tyr	Ala	Met
			165						170					175	
Lys	Ile	Leu	Lys	Lys	Glu	Val	Ile	Ile	Ala	Lys	Asp	Glu	Val	Ala	His
		180						185					190		
Thr	Leu	Thr	Glu	Ser	Arg	Val	Leu	Lys	Asn	Thr	Arg	His	Pro	Phe	Leu
		195					200					205			
Thr	Ser	Leu	Lys	Tyr	Ser	Phe	Gln	Thr	Lys	Asp	Arg	Leu	Cys	Phe	Val
		210				215					220				
Met	Glu	Tyr	Val	Asn	Gly	Gly	Glu	Leu	Phe	Phe	His	Leu	Ser	Arg	Glu
225					230						235				240
Arg	Val	Phe	Ser	Glu	Asp	Arg	Thr	Arg	Phe	Tyr	Gly	Ala	Glu	Ile	Val
				245					250					255	
Ser	Ala	Leu	Asp	Tyr	Leu	His	Ser	Gly	Lys	Ile	Val	Tyr	Arg	Asp	Leu
		260						265					270		
Lys	Leu	Glu	Asn	Leu	Met	Leu	Asp	Lys	Asp	Gly	His	Ile	Lys	Ile	Thr
		275					280				285				
Asp	Phe	Gly	Leu	Cys	Lys	Glu	Gly	Ile	Thr	Asp	Ala	Ala	Thr	Met	Lys
		290				295				300					
Thr	Ser	Cys	Gly	Thr	Pro	Glu	Tyr	Leu	Ala	Pro	Glu	Val	Leu	Glu	Asp
305					310					315				320	
Asn	Asp	Tyr	Gly	Arg	Ala	Val	Asp	Trp	Trp	Gly	Leu	Gly	Val	Val	Met

```

          325              330              335
Tyr Glu Met Met Cys Gly Arg Leu Pro Phe Tyr Asn Gln Asp His Glu
          340              345              350
Lys Leu Phe Glu Leu Ile Leu Met Glu Asp Ile Lys Phe Pro Arg Thr
          355              360              365
Leu Ser Ser Asp Ala Lys Ser Leu Leu Ser Gly Leu Leu Ile Lys Asp
          370              375              380
Pro Asn Lys Arg Leu Gly Gly Gly Pro Asp Asp Ala Lys Glu Ile Met
          385              390              395              400
Arg His Ser Phe Phe Ser Gly Val Asn Trp Gln Asp Val Tyr Asp Lys
          405              410              415
Lys Leu Val Pro Pro Phe Lys Pro Gln Val Thr Ser Glu Thr Asp Thr
          420              425              430
Arg Tyr Phe Asp Glu Glu Phe Thr Ala Gln Thr Ile Thr Ile Thr Pro
          435              440              445
Pro Glu Lys Tyr Asp Glu Asp Gly Met Asp Cys Met Asp Asn Glu Arg
          450              455              460
Arg Pro His Phe Pro Gln Phe Ser Tyr Ser Ala Ser Gly Arg Glu
          465              470              475

```

<210> 5793

<211> 2767

<212> DNA

<213> Homo sapiens

<400> 5793

```

aattcggcac taggggcagc tctcggctgg aaggaactgg tctgctcaca ctctgtggct
60
tgcgcatcag gactggcttt atctcctgac tcaagggtgca aaggtgcact ctgcgaacgt
120
taagtcgctc cccagcgctt ggaatcctac gggccccaca gccggatccc ctcagccttc
180
caggtcctca actcccgctg acgtgaaca atggcctcca tggggctaca ggtaattggc
240
atcgcgctgg ccgtcctggg ctggctgggc gtcatgctgt getgcgcgct gcccatgtgg
300
cgcggtgacg ccctcatcgg cagcaacatt gtcacctcgc agaccatctg ggaggggccta
360
tggaatgaact gcgtggtgca gacacccggc cagatgcagt gcaagggtga cgactcgctg
420
ctggactcgc cgcaggacct gcaggcggcc cgcgcctcgc tcatcatcag catcatcgctg
480
gctgctctgg gcgtgctgct gtccgtgggt gggggcaagt gtaccaactg cctggaggat
540
gaaagcgcca aggcccaagac catgatcgtg cggggcgtgg tggtcctgtt ggccggcctt
600
atggtgatag tgccggtgct ctggacggcc cacaacatca tccaagactt ctacaatcgg
660
ctggtggcct ccgggcagaa gcgggagatg ggtgctcgc tctacgtcgg ctgggcccgc
720
tcggcctcgc tgctccttgg cggggggctg ctttgcctga actgtccacc ccgcacagac
780
aagccttact ccgccaagta ttctgctgcc cgctctgctg ctgccagcaa ctacgtgtaa
840

```


gggtgccacgg ctccactctg ttccctctctg ctttgtttctt ccctgggactg agctcagcgc
900
aggctgtgac cccaggaggg cccctgccacg ggccactggc tgctggggac tggggactgg
960
gcagagactg agccaggcag gaaggcagca gccttcagcc tctctggccc actcggacaa
1020
cttcccaagg ccgctcctg ctacgaagaa cagagtcacc cctcctctgg atattgggga
1080
gggacggaag tgacagggtg tgggtggtgga gtggggagct ggcttctgct ggccaggata
1140
gcttaacct gactttggga tctgcttcca tcggcggttg ccactgtccc catttacatt
1200
ttccccactc tgtctgcctg catctcctct gttccgggta ggcttgata tcacctctgg
1260
gactgtgcct tgctcaccga aacccgcgcc caggagtatg gctgaggcct tgcccccca
1320
cctgcctggg aagtgcagag tggatggacg ggttttagagg ggaggggcga aggtgctgta
1380
aacagggttg ggcagtgggt ggggaggggg ccagagaggc ggctcagggt gccacgctct
1440
gtggcctcag gactctctgc ctaccccgct tcagcccagg gcccttgag actgatcccc
1500
tctgagtcct ctgccccctc caaggacact aatgagcctg ggagggtggc agggaggagg
1560
ggacagcttc acccttggaa gtcttgggtt ttttctctct ccttctttgt ggtttctgtt
1620
ttgtaattta agaagagcta ttcactactg taattattat tttttctac aataaatggg
1680
acctgtgcac aggagggaaa aaaaaaaaa aaaaggagac cacagcctgc caagggagca
1740
gctgcccaaa tgtttctctga cccgtgacct agagatgaag taatttgatt tattccctat
1800
ttcttttagt ctcaatggct aaggggtaat ggatggaaat ggggagaatg accgagtaga
1860
ggcaaggacg aagctcattc ttaagaaaa accccaagt tcaacttcaa acagctgaaa
1920
tttgtttcat agctgttggt caccagcttc tagccaacca ggaataaatt atagttttgc
1980
cacctcagca gatggcaaaa ggagctttcc agaactttgg cctggtctgc accaggtacc
2040
aacatcacag ctgctaaaaa caccagaagg gattttggaa ccgctgtact agtgtccttt
2100
cattcgatgg gatgtccagg ctccacccca aagaggcttc atttatgctt cttctcctgt
2160
gtgctgggta accaagatgc taggagcttc ttgctgtagt acaactgccca ggcatgcaot
2220
tgactgtcca acaccaacac caggtacatg atggaaaacg cagaaaaacc aaagaggaaa
2280
cgglaggcct tgccatggcy gtagagctgc tgtgcagcag ggaacatctc catgctgcca
2340
taaatgagtg gacgatgga aaagagtccc atgctgatca tggagagcac caggtagcta
2400
atgttgttgc ggggaaagga gagaaggccc aagagagagg gcaaaatgct cagcaaatatc
2460

gggtattccc actgataggg catggccacc tgatcatgtg acaagagcct caggtgtccc
 2520
 acgctcatct tagcaaccag cagcagccat atgaccagat gtacgtagat cagctctttg
 2580
 atttcatact tgagggtcac actcatctgg tagtgcattg cgacgcgtc ccggtgctga
 2640
 aagtcgtgct cgtcggtgcc ggcgcgtcgc gggcctgctc gagacgccat tgtgcctgcc
 2700
 cagaaccccc gaacccctca cgcggacctg gtaccgcaac gacagccaag cggcccaagt
 2760
 accctat
 2767

<210> 5794

<211> 209

<212> PRT

<213> Homo sapiens

<400> 5794

Met	Ala	Ser	Met	Gly	Leu	Gln	Val	Met	Gly	Ile	Ala	Leu	Ala	Val	Leu
1				5					10					15	
Gly	Trp	Leu	Ala	Val	Met	Leu	Cys	Cys	Ala	Leu	Pro	Met	Trp	Arg	Val
		20					25						30		
Thr	Ala	Phe	Ile	Gly	Ser	Asn	Ile	Val	Thr	Ser	Gln	Thr	Ile	Trp	Glu
		35				40						45			
Gly	Leu	Trp	Met	Asn	Cys	Val	Val	Gln	Ser	Thr	Gly	Gln	Met	Gln	Cys
		50				55					60				
Lys	Val	Tyr	Asp	Ser	Leu	Leu	Ala	Leu	Pro	Gln	Asp	Leu	Gln	Ala	Ala
65				70					75					80	
Arg	Ala	Leu	Val	Ile	Ile	Ser	Ile	Ile	Val	Ala	Ala	Leu	Gly	Val	Leu
			85						90					95	
Leu	Ser	Val	Val	Gly	Gly	Lys	Cys	Thr	Asn	Cys	Leu	Glu	Asp	Glu	Ser
		100						105						110	
Ala	Lys	Ala	Lys	Thr	Met	Ile	Val	Ala	Gly	Val	Val	Phe	Leu	Leu	Ala
		115					120					125			
Gly	Leu	Met	Val	Ile	Val	Pro	Val	Ser	Trp	Thr	Ala	His	Asn	Ile	Ile
		130				135					140				
Gln	Asp	Phe	Tyr	Asn	Pro	Leu	Val	Ala	Ser	Gly	Gln	Lys	Arg	Glu	Met
145				150					155					160	
Gly	Ala	Ser	Leu	Tyr	Val	Gly	Trp	Ala	Ala	Ser	Gly	Leu	Leu	Leu	Leu
			165						170					175	
Gly	Gly	Gly	Leu	Leu	Cys	Cys	Asn	Cys	Pro	Pro	Arg	Thr	Asp	Lys	Pro
			180				185					190			
Tyr	Ser	Ala	Lys	Tyr	Ser	Ala	Ala	Arg	Ser	Ala	Ala	Ala	Ser	Asn	Tyr
		195					200						205		

Val

<210> 5795

<211> 993

<212> DNA

<213> Homo sapiens

<400> 5795

ccacatacaa agaggaaaga tgaactttt attgttacat ttattgacac tggatattta
 60
 ttatctgtta tataccaggc aaaatggaca caccatcagg agataagacc tgtatcttac
 120
 gtgtaagatg aaacttatat ttattgattg aattattgaa tactttttga gtatttgcta
 180
 tataccaggc aaaaggcaca gaacaaatta ttgttccaca gttactttta actctttcag
 240
 caatgcctga gtcctcttta tagaaacttc attttgctaa gttagcaacc attcattttt
 300
 ttggttactc ttcattgata gttttctcaa gtgtctcttc aaatactgca taatggtata
 360
 gaccatttaa tattccaac ataacttgaa agactagagg aatcgccatt aatttcattt
 420
 gtgtttgaca aagcgtcatc caatggatta aaaccttcc ttttgggtgc agtggaaagg
 480
 tatgatactt ggttgccagg cgtccatttt tagtaaaagc caaagaactg ggatagaaaa
 540
 caccacaac tatgccatc agtgagcttc tgaacacaca gtttcccttg cttatattat
 600
 ctgaatacaa agcatcaatt acaaaaagct tgcagtaac aacagttagc aaaaattggaa
 660
 gtgtagccaa tgatgcatat gtcttcaaag catcatgttt aaccttgaaag cagcgtctga
 720
 acaggaagtt tgagaatatt ccagagaac cagctgttgt tccaaatgtc gccatttgat
 780
 atatattttg tgtcatttct tttctaatg agtcaaaatt tttttctatg atttctatga
 840
 ccattggtct tctgagtttt gcattcttca gagaaggact gggctgacca tgcatagatg
 900
 ctgccatctt gaaaaccttg ggcgttctct cagttccac cggcaccaca cctgaatccc
 960
 ttggttagt cccagcctca taccgaaca cca
 993

<210> 5796

<211> 200

<212> PRT

<213> Homo sapiens

<400> 5796

Met	Ala	Ala	Ser	Met	His	Gly	Gln	Pro	Ser	Pro	Ser	Leu	Glu	Asp	Ala
1				5				10					15		
Lys	Leu	Arg	Arg	Pro	Met	Val	Ile	Glu	Ile	Ile	Glu	Lys	Asn	Phe	Asp
			20				25					30			
Tyr	Leu	Arg	Lys	Glu	Met	Thr	Gln	Asn	Ile	Tyr	Gln	Met	Ala	Thr	Phe
			35				40					45			
Gly	Thr	Thr	Ala	Gly	Phe	Ser	Gly	Ile	Phe	Ser	Asn	Phe	Leu	Phe	Arg
			50				55				60				
Arg	Cys	Phe	Lys	Val	Lys	His	Asp	Ala	Leu	Lys	Thr	Tyr	Ala	Ser	Leu
					70					75				80	
Ala	Thr	Leu	Pro	Phe	Leu	Ser	Thr	Val	Val	Thr	Asp	Lys	Leu	Phe	Val
					85					90				95	
Ile	Asp	Ala	Leu	Tyr	Ser	Asp	Asn	Ile	Ser	Lys	Glu	Asn	Cys	Val	Phe

```

          100              105              110
Arg Ser Ser Leu Ile Gly Ile Val Cys Gly Val Phe Tyr Pro Ser Ser
      115              120              125
Leu Ala Phe Thr Lys Asn Gly Arg Leu Ala Thr Lys Tyr His Thr Val
      130              135              140
Pro Leu Pro Pro Lys Gly Arg Val Leu Ile His Trp Met Thr Leu Cys
      145              150              155              160
Gln Thr Gln Met Lys Leu Met Ala Ile Pro Leu Val Phe Gln Ile Met
      165              170              175
Phe Gly Ile Leu Asn Gly Leu Tyr His Tyr Ala Val Phe Glu Glu Thr
      180              185              190
Leu Glu Lys Thr Ile His Glu Glu
      195              200

```

<210> 5797

<211> 405

<212> DNA

<213> Homo sapiens

<400> 5797

```

ctcagatcaa taccocgact ggccagtcga gggaaactgct gagagcggct tgcgtgtgtc
60
gaggagcaga aagaggatgg cctcactcc agctcctgca ctgccagcag cccaccctgc
120
ttctctctcg ccagcagcca aaagcaggca actgccggac agtcctaacc caaggcgggt
180
agaaggggagc agagaccagg cctggcccct tcagactttc tcacagagaa attacagatc
240
tctaagcctc tattgttggc tggcgaggga ggaagaaca tcaagttatc agggaaatca
300
aggatccctc cgccccgcgc ctgaaccagc aggtccggaa gggagcaagc ggtcaggagg
360
gccagtgcct tgcgggaacc ccagcctcat gaccaacctc ggccg
405

```

<210> 5798

<211> 109

<212> PRT

<213> Homo sapiens

<400> 5798

```

Met Ala Leu Thr Pro Ala Leu Pro Ala Ala His Pro Ala Ser
 1          5          10          15
Leu Leu Pro Ala Ala Lys Ser Arg Gln Leu Pro Asp Ser Pro Asn Pro
      20          25          30
Arg Arg Val Glu Gly Ser Arg Asp Gln Ala Trp Pro Leu Gln Thr Phe
      35          40          45
Ser Gln Arg Asn Tyr Arg Ser Leu Ser Leu Tyr Cys Trp Leu Ala Arg
      50          55          60
Glu Gly Arg Thr Ser Ser Tyr Gln Gly Asn Gln Gly Ser Leu Arg Pro
      65          70          75          80
Arg Pro Glu Pro Arg Gly Pro Glu Gly Ser Lys Arg Ser Gly Arg Pro
      85          90          95
Val Pro Cys Gly Asn Pro Ser Leu Met Thr Asn Leu Gly

```

100

105

<210> 5799
 <211> 4261
 <212> DNA
 <213> Homo sapiens

<400> 5799
 agtgggtgga gaagccactc tcccgaacc agagggatgg ggccggctgt gcagtagaac
 60
 ggggatcgaa aagaggaaaa caagggcacg aagaccagcg agaaagaaga ggacacctgg
 120
 gaaaggcgga agcagaagac ggggaaggga aaagaaacc atagcaggtg gaaaccagat
 180
 cttagagcaac accgtcaggt tcacagtgtg ttttctaga agagaagaaa gtacctgagg
 240
 attgctcttt tttctacog ttaatgaaaa ctacttttgt cttcatcata aaagaaaaaa
 300
 ctaaggggga gtaaaaggcag tctcctgttt tattaggggg agaggtgaag ggaatccag
 360
 gctcactctt tgaataagcc actgcctggg gcacagagca gaaccatctt ggtttctgaa
 420
 gacacatccc tttcagcaga attccagccg gagtcgctgg cacagtctta tttttatatt
 480
 taaatgtatg tctccctcgg cctttttttt tttttttttt ttttttttagc aacacttttc
 540
 ttgtttgtaa acgogagtga ccagaaagtg tgaatcgga gtaggaatat ttttcgtgtt
 600
 ctcttttatt tgcttgccct ttttagagag tagcagtggt tcctatttcg gaaaggagc
 660
 ttctaattca aagctctctc ccaatatatt tacacgaata cgcatttaga aaggaggcca
 720
 gcttttgagg ttgcaatcct actgagaagg atggaagaag gagccaggca ccgaaacaac
 780
 accgaaaaga aacaccaggg tgggggcgag tcggagccca gccccgaggc tggttccgga
 840
 gggggcgagg tagccctgaa gaaagagatc ggattggcta gtgcctgtgg tatcatcgta
 900
 gggaacatca tcggctctgg aatctttgtc tcgccaaagg gagtgctgga gaatgctgg
 960
 tctgtgggcc ttgctctcat cgtctggatt gtgacgggct tcatcacagt tggggagcc
 1020
 ctctgctatg ctgaactcgg ggtcaccatc cccaaatctg gaggtgacta ctctatgtc
 1080
 aaggacatct tcggaggact ggctgggttc ctgaggtctg ggattgctgt gctgggtgatc
 1140
 taccgcccca accaggtctg catcgccctc accttctcca actacgtctg gcagccgctc
 1200
 ttcccaacct gcttcccccc agagtctggc cttcggtccc tggctgccat ctgcttattg
 1260
 ctctccatc ggttcaactg ttccagtgtg cgggtgggcca cccgggttca agacatcttc
 1320
 acagctggga agctcctggc cttggccctg attatcatca tggggattgt acagatatgc
 1380

aaaggagagt acttctggct ggagccaaag aatgcatttg agaatttcca ggaacctgac
1440
atcggcctcg tcgcactggc ttctcttcag ggctcctttg cctatggagg ctggaacttt
1500
ctgaattacg tgactgagga gcttggtgat cctacaaga accttcccag agccatcttc
1560
atctccatcc cactggtcac atttggtgat gtctttgcc aatgctgctta tgcactgca
1620
atgtccccc aggagctgct ggcacccaac gccgtcgttg tgactttttg agagaagctc
1680
ctaggagtca tggcctggat catgccatt tctgttgccc tgtccacatt tggaggagtt
1740
aatgggtctc tcttcacctc ctctcggttg ttcttcgttg gagcccgaga gggccacctt
1800
cccagtggtg tggccatgat ccacgtgaag cgctgcaccc caatcccagc cctgtcttcc
1860
acatgcattc caacctgct gatgctggtc accagcgaca tgtacacact catcaactac
1920
gtgggcttca tcaactacct ctctatggg gtcacgggtg ctggacagat agtcccttgc
1980
tggaagaagc ctgatatccc ccgcccacac aagatcaacc tgcgttccc catcatctac
2040
tgtctgttct gggccttctc gctggctctc agcctgtggt cagagccggg ggtgtgtggc
2100
attggcctgg ccacatgct gacaggagtg cctgtctatt tccctgggtgt ttaactggca
2160
cacaagcccc agtgttttcag tgacttcatt gagctgctaa cctgtgtgag ccagaagatg
2220
tgtgtggtcg tgtaccccca ggtggagcgg ggctcgggga cagaggaggc taatgaggac
2280
atggaggagc agcagcagcc catgtaccaa cccactccca cgaaggacaa ggaagtggcg
2340
gggcagcccc agcctgagg accaccatcc cctggctact ctctcttcc tccccctttt
2400
atctacatcc cctgccttgg tcccgcacac acatgcgagt acacacacac cctctctctc
2460
gcttttgtca ggcagtggta ggaacttggg gtgggtgggt agaaattgta acaaaaaact
2520
gacattcata ccaaaagaac cagcctctca cccaggggtc catgtccag gccccactcc
2580
agtgtgtccc acactcccag ctgctggagg agaggggaga tgccaagggt cctgcaggga
2640
ctccctccg ggccacccc tcagctgcct ctccaggaa cggagctcat tactgecttc
2700
cctcccaggg agggcccttc agagaggaga ggccacaggga gctgcattgt gggggagacg
2760
gtcgaagcaa ttctgtcccc atcaaggggt cagctggaga gaccaagac cctatctgtt
2820
caccagggac ccaaaatcca aggggatgct tccctctgac ctcttctctg cccctcccca
2880
tcatactgc acccaaccca gccagggtcc cctgtccaga attcggttct cctcaggagc
2940
ccaactccca gagctaagga ccaaggagaa gaacagcttc tccaccccca agccaggcgg
3000

ttgaggaaca tattgagaaa gggttcagatt gcagaaaccc agccctgccc ctgcctctctg
 3060
 catccagccc ccaacatggg gccaaagctt ccagaagcca aaaagctctt gatttttaag
 3120
 gtatgtgggca tctctctcct aatgacgaag ctgctcagca actccacctg ccgcgcgcag
 3180
 gaaggagcag tccctgcta tccctgcagc cactcccagc acaccgcac acagccagca
 3240
 ccaccgcccc caccgtgcac ttctctctct tgggccttgg cttgggacca ggtacgaagg
 3300
 atccccaaag ccttcaggcc tgagatcaga gccagatcag ccttaagtea cctcccatcc
 3360
 aagaactttg cctaaaaata ctcccctatt tctaaccctc aggcaggatc tgatattaaa
 3420
 tgccttccct gggaggaagg gtgctttccc cctccctaga ggtgcccatt ccataccctg
 3480
 ggagactgag gagagcattg gctgaagccc agtctcttcc ccatccatcc ccaactccaa
 3540
 taatccccc ctcctgcag gtctcagtg catgctgtct tggggcaggg tgaaagggta
 3600
 gtggcagcag ggcgccact ctggagatcc tcaaaaaagg cctcctctg tggtggcag
 3660
 cctctgacct ttccctgggc ttcaaaggaa ggcctatggag ttgctgtggy gccctgcaac
 3720
 cttccagacc actcctgctg cactaaggac ttaggatcct tttatcacia atcgggattc
 3780
 tctccccac ccgaattct gtctgcttaa actggaatac acaggagccc ttcttgccct
 3840
 ggatgggtgc tccagcttc ccgcgccagc ttgccccc catagtgtgg gatagccaa
 3900
 gtttggtctg agttgtgacc ccttcagagt agatgcccg caggctgggg ttggccctg
 3960
 gagggtcagg ggaccatctt cttattccct cttttctcat tctcccaact tctccctc
 4020
 cttcaattat tttttttaa agttgatgcc ttactttttg gataaatatt ttggaagctg
 4080
 gtatttctat ttcttttga ttttttttaa tgtaaggttg ttttggggga tggagttaga
 4140
 acctaatga taattctctt cgtttggtgt aggttttaga gattgtttt gtggagaggt
 4200
 tttttcttt tgatgtaata aaatttaaaa tggaaatgaa aaaaaaaaaa aaaaaaaaaa
 4260
 a
 4261

<210> 5800

<211> 535

<212> PRT

<213> Homo sapiens

<400> 5800

Met Glu Glu Gly Ala Arg His Arg Asn Asn Thr Glu Lys Lys His Pro

1	5	10	15
Gly	Gly	Gly	Glu
Ser	Asp	Ala	Ser
Pro	Glu	Ala	Gly
Ser	Gly	Gly	Gly

20 25 30
 Gly Val Ala Leu Lys Lys Glu Ile Gly Leu Val Ser Ala Cys Gly Ile
 35 40 45
 Ile Val Gly Asn Ile Ile Gly Ser Gly Ile Phe Val Ser Pro Lys Gly
 50 55 60
 Val Leu Glu Asn Ala Gly Ser Val Gly Leu Ala Leu Ile Val Trp Ile
 65 70 75 80
 Val Thr Gly Phe Ile Thr Val Val Gly Ala Leu Cys Tyr Ala Glu Leu
 85 90 95
 Gly Val Thr Ile Pro Lys Ser Gly Gly Asp Tyr Ser Tyr Val Lys Asp
 100 105 110
 Ile Phe Gly Gly Leu Ala Gly Phe Leu Arg Leu Trp Ile Ala Val Leu
 115 120 125
 Val Ile Tyr Pro Thr Asn Gln Ala Val Ile Ala Leu Thr Phe Ser Asn
 130 135 140
 Tyr Val Leu Gln Pro Leu Phe Pro Thr Cys Phe Pro Pro Glu Ser Gly
 145 150 155 160
 Leu Arg Leu Leu Ala Ala Ile Cys Leu Leu Leu Thr Trp Val Asn
 165 170 175
 Cys Ser Ser Val Arg Trp Ala Thr Arg Val Gln Asp Ile Phe Thr Ala
 180 185 190
 Gly Lys Leu Leu Ala Leu Ala Leu Ile Ile Met Gly Ile Val Gln
 195 200 205
 Ile Cys Lys Gly Glu Tyr Phe Trp Leu Glu Pro Lys Asn Ala Phe Glu
 210 215 220
 Asn Phe Gln Glu Pro Asp Ile Gly Leu Val Ala Leu Ala Phe Leu Gln
 225 230 235 240
 Gly Ser Phe Ala Tyr Gly Gly Trp Asn Phe Leu Asn Tyr Val Thr Glu
 245 250 255
 Glu Leu Val Asp Pro Tyr Lys Asn Leu Pro Arg Ala Ile Phe Ile Ser
 260 265 270
 Ile Pro Leu Val Thr Phe Val Tyr Val Phe Ala Asn Val Ala Tyr Val
 275 280 285
 Thr Ala Met Ser Pro Gln Glu Leu Leu Ala Ser Asn Ala Val Ala Val
 290 295 300
 Thr Phe Gly Glu Lys Leu Leu Gly Val Met Ala Trp Ile Met Pro Ile
 305 310 315 320
 Ser Val Ala Leu Ser Thr Phe Gly Gly Val Asn Gly Ser Leu Phe Thr
 325 330 335
 Ser Ser Arg Leu Phe Phe Ala Gly Ala Glu Gly His Leu Pro Ser
 340 345 350
 Val Leu Ala Met Ile His Val Lys Arg Cys Thr Pro Ile Pro Ala Leu
 355 360 365
 Leu Phe Thr Cys Ile Ser Thr Leu Leu Met Leu Val Thr Ser Asp Met
 370 375 380
 Tyr Thr Leu Ile Asn Tyr Val Gly Phe Ile Asn Tyr Leu Phe Tyr Gly
 385 390 395 400
 Val Thr Val Ala Gly Gln Ile Val Leu Arg Trp Lys Lys Pro Asp Ile
 405 410 415
 Pro Arg Pro Ile Lys Ile Asn Leu Leu Phe Pro Ile Ile Tyr Leu Leu
 420 425 430
 Phe Trp Ala Phe Leu Leu Val Phe Ser Leu Trp Ser Glu Pro Val Val
 435 440 445
 Cys Gly Ile Gly Leu Ala Ile Met Leu Thr Gly Val Pro Val Tyr Phe


```

      450              455              460
Leu Gly Val Tyr Trp Gln His Lys Pro Lys Cys Phe Ser Asp Phe Ile
465              470              475              480
Glu Leu Leu Thr Leu Val Ser Gln Lys Met Cys Val Val Val Tyr Pro
      485              490              495
Glu Val Glu Arg Gly Ser Gly Thr Glu Glu Ala Asn Glu Asp Met Glu
      500              505              510
Glu Gln Gln Gln Pro Met Tyr Gln Pro Thr Pro Thr Lys Asp Lys Asp
      515              520              525
Val Ala Gly Gln Pro Gln Pro
      530              535

```

```

<210> 5801
<211> 2418
<212> DNA
<213> Homo sapiens

```

```

<400> 5801
nntccggaag tgetcagtc tgttcataagc aactcctaga gggcagagat ttcattctgct
60
ctgccccacc ctatatagcc agccactaga acaggccgga agcgacagaaa gagctaaagt
120
cccacctcag acgacgtcat ggactcgttc ctggaaaagt tccagagcca gccttaccgt
180
ggcggtcttc atgaggacca gtgggagaag gaatttgaaa aggtcccctt atttatgtcg
240
agagcgccat cagaaattga tccaggggag aatcctgact tggcttgtct ccagtcgaatt
300
attttttgatg aggagcgttc tccagaagaa caggccaaga cctataaaga tgaggccaat
360
gattacttta aagaaaaaga ctacaagaaa gctgtaattt catacactga aggcttaaaag
420
aagaaatgtg cagatcctga tttgaatgct gtcctttata ccaaccgggc agcagcacag
480
tactatctgg gcaattttcg ttctgctctc aatgatgtga cagctgccag aaagctaaaa
540
ccctgccacc tcaaagcaat aataagagggt gccttatgcc atctgggaat gaacactttt
600
gccgaggccg tgaactggtg tgatgagggg ctgcaaatag atgccaaga gaagaagctt
660
ctggaaatga gggctaagc agacaagctg aagcgaattg aacagagggg tgtgaggaaa
720
gccaacttga aagaaaaaga ggagaggaat cagaatgagg ctttactcca ggccatcaag
780
gctaggaata tcaggctctc agaagctgcc tgtgaggatg aagattcagc ctcagaaggt
840
ctagggtgagc ttttcttgga tggactcagc actgagaacc ccatggagc caggctgagt
900
ctagatggcc agggcaggct gagctggcct gtgctcttct tgtaccaga gtatgccag
960
tcggacttca tctctgcttt tcatgaggac tccaggttta ttgatcatct aatgggtgatg
1020
tttggtgaaa caccctcttg ggacctagag caaaaatatt gcctgataat ttggagggtct
1080

```

actttgagga tgaggacagg gcagaactat accgggtgcc tgccaagagc accttgctac
 1140
 aggttctaca gcaccagagg tactttgtaa aagccctgac accagcattt ttggtctgtg
 1200
 taggacctc tcccttttgc aagaattttc tccgggggag aaagggtgac cagatacgat
 1260
 gactaagcca gggcccttgg atctcctccc ttacctcct ctgctgggaa cctgacacac
 1320
 ctgaatcagc tggacatact gctggagtc agtgctttct ttcctgacac ctggggatag
 1380
 tccctctctg catcgtggtg ggggaggagc ctctggcttc cctaaactgc agcctctctg
 1440
 gctggtcttc actttcttca gttgatataa aactctgggt cttggccatg atgtccttgg
 1500
 actccatcgc taaaggagacc atctgctgca gttaccacag caactgacct gagcggcacc
 1560
 ctggtctgtg gagatggact caggatccag tgacatgatt ctgaactttt gtggagtgtg
 1620
 acaccctaga gaagctaccc ctcaaaactgc acatctacac acaaacaaac aatgcataag
 1680
 attccaagc tttaaagctg agagaccctg gcctcaagtt atttcatgctg cacagaggga
 1740
 agccatgtg ggttgctgaa gatgccttga ggtgaaatgg gggcaggaaa gccacatctt
 1800
 gctctgcatt tataaagacc gtacaaactg agatccttgg taccctctaa aagattgcca
 1860
 attttcttca tctttgccat atggaggact gtgacagact ttggacagtg gcctcttgag
 1920
 ttctctgca gttttgacat ttaggatttt gtgtctttta aactggaaaa tcttctagca
 1980
 tgttgggttg ttacagagta tatttttgtc tgcagctgtt tgttgcctca ttcctaagag
 2040
 gagtttatcc atcctgactt gtagctgtgt gacttcttgc agtgccccca ccccatacc
 2100
 cccgggagag tgtacttccc tgctcccaat gcagagggat atgcacaggc atgagctgtc
 2160
 ctgctgttga cagaagcctg aagagtcagt tgtggttggc ctgtgctctt cctctgctg
 2220
 tgagaacaca ttccccacag aggagccgtt ccatggagcc gagctacagc agctggcctg
 2280
 cagccactga gtgtcacagc aatgagagag caatgtttgc ttagtaagc agtgagattt
 2340
 aggggttggt tgttactata gcagagctaa tacatgagta aactgaaaaa aaaaaaaaaa
 2400
 aaaaaaaaaa aaaaaaaaaa
 2418

<210> 5802

<211> 350

<212> PRT

<213> Homo sapiens

<400> 5802

Asp Pro Thr Ser Asp Asp Val Met Asp Ser Phe Leu Glu Lys Phe Gln

```

      1           5           10           15
Ser  Gln  Pro  Tyr  Arg  Gly  Gly  Phe  His  Glu  Asp  Gln  Trp  Glu  Lys  Glu
      20
Phe  Glu  Lys  Val  Pro  Leu  Phe  Met  Ser  Arg  Ala  Pro  Ser  Glu  Ile  Asp
      35
Pro  Arg  Glu  Asn  Pro  Asp  Leu  Ala  Cys  Leu  Gln  Ser  Ile  Ile  Phe  Asp
      50
Glu  Glu  Arg  Ser  Pro  Glu  Glu  Gln  Ala  Lys  Thr  Tyr  Lys  Asp  Glu  Gly
      65
Asn  Asp  Tyr  Phe  Lys  Glu  Lys  Asp  Tyr  Lys  Lys  Ala  Val  Ile  Ser  Tyr
      85
Thr  Glu  Gly  Leu  Lys  Lys  Lys  Cys  Ala  Asp  Pro  Asp  Leu  Asn  Ala  Val
      100
Leu  Tyr  Thr  Asn  Arg  Ala  Ala  Ala  Gln  Tyr  Tyr  Leu  Gly  Asn  Phe  Arg
      115
Ser  Ala  Leu  Asn  Asp  Val  Thr  Ala  Ala  Arg  Lys  Leu  Lys  Pro  Cys  His
      130
Leu  Lys  Ala  Ile  Ile  Arg  Gly  Ala  Leu  Cys  His  Leu  Glu  Leu  Lys  His
      145
Phe  Ala  Glu  Ala  Val  Asn  Trp  Cys  Asp  Glu  Gly  Leu  Gln  Ile  Asp  Ala
      165
Lys  Glu  Lys  Lys  Leu  Leu  Glu  Met  Arg  Ala  Lys  Ala  Asp  Lys  Leu  Lys
      180
Arg  Ile  Glu  Gln  Arg  Asp  Val  Arg  Lys  Ala  Asn  Leu  Lys  Glu  Lys  Lys
      195
Glu  Arg  Asn  Gln  Asn  Glu  Ala  Leu  Leu  Gln  Ala  Ile  Lys  Ala  Arg  Asn
      210
Ile  Arg  Leu  Ser  Glu  Ala  Ala  Cys  Glu  Asp  Glu  Asp  Ser  Ala  Ser  Glu
      225
Gly  Leu  Gly  Glu  Leu  Phe  Leu  Asp  Gly  Leu  Ser  Thr  Glu  Asn  Pro  His
      245
Gly  Ala  Arg  Leu  Ser  Leu  Asp  Gly  Gln  Gly  Arg  Leu  Ser  Trp  Pro  Val
      260
Leu  Phe  Leu  Tyr  Pro  Glu  Tyr  Ala  Gln  Ser  Asp  Phe  Ile  Ser  Ala  Phe
      275
His  Glu  Asp  Ser  Arg  Phe  Ile  Asp  His  Leu  Met  Val  Met  Phe  Gly  Glu
      290
Thr  Pro  Ser  Trp  Asp  Leu  Glu  Gln  Lys  Tyr  Cys  Leu  Ile  Ile  Trp  Arg
      305
Ser  Thr  Leu  Arg  Met  Arg  Thr  Gly  Gln  Asn  Tyr  Thr  Gly  Cys  Leu  Pro
      325
Arg  Ala  Pro  Cys  Tyr  Arg  Phe  Tyr  Ser  Thr  Arg  Gly  Thr  Leu
      340
      345
      350

```

<210> 5803

<211> 692

<212> DNA

<213> Homo sapiens

<400> 5803

```

naccgctgaa ggggacgccg ggaacaggaa ttcttcaca tggctcctgg agaagtgacc
60
atcacagttc gcctcatcgc ttcccttgaa catcgcaatt tcaaacctgt agtgtatcac
120

```

ggagtgaatt tggaccaaac tgtaaaggaa ttatcggtat ttctaaagca agatgtccct
 180
 ttaaggacca acctgccacc accattcaga aattataaat atgatgcact aaagattatt
 240
 catcaagcac ataatcaaa gacaaatgaa cttgtgttga gtttgaaga tgacgaaaga
 300
 ctcctgctga aagaagacag cactctgaaa gcagctggaa tcgccagtga aactgaaatt
 360
 gcattcttct gtgaagaaga ttataggaac tacaagcta atccccattc atcctgggtga
 420
 aaacatctcg agggcttctt ttttgcatac ctgtattaag ctctttattc cactgctgag
 480
 tttttgaaat tgacaaacaa atcttaaaaa attaatccca ggctatactc tttagcttaa
 540
 aatctggtta tttctttctc ttcaggtctt tcttctcttc tctctttctt tttctttgtt
 600
 gttgtaaaat aatatattat gagaaaaaca ttgatctttt ttaaagggaata ataaattggt
 660
 attaaaaatt aaaaaaaaaa aaaaaaaaaa aa
 692

<210> 5804

<211> 126

<212> PRT

<213> Homo sapiens

<400> 5804

Met	Ala	Pro	Gly	Glu	Val	Thr	Ile	Thr	Val	Arg	Leu	Ile	Arg	Ser	Phe
1				5					10					15	
Glu	His	Arg	Asn	Phe	Lys	Pro	Val	Val	Tyr	His	Gly	Val	Asn	Leu	Asp
			20						25					30	
Gln	Thr	Val	Lys	Glu	Phe	Ile	Val	Phe	Leu	Lys	Gln	Asp	Val	Pro	Leu
			35					40					45		
Arg	Thr	Asn	Leu	Pro	Pro	Pro	Phe	Arg	Asn	Tyr	Lys	Tyr	Asp	Ala	Leu
			50				55				60				
Lys	Ile	Ile	His	Gln	Ala	His	Lys	Ser	Lys	Thr	Asn	Glu	Leu	Val	Leu
							70				75			80	
Ser	Leu	Glu	Asp	Asp	Glu	Arg	Leu	Leu	Leu	Lys	Glu	Asp	Ser	Thr	Leu
				85					90					95	
Lys	Ala	Ala	Gly	Ile	Ala	Ser	Glu	Thr	Glu	Ile	Ala	Phe	Phe	Cys	Glu
			100						105					110	
Glu	Asp	Tyr	Arg	Asn	Tyr	Lys	Ala	Asn	Pro	Ile	Ser	Ser	Trp		
			115					120					125		

<210> 5805

<211> 1112

<212> DNA

<213> Homo sapiens

<400> 5805

nntccggagc tcccgcgtct ccacctcccc ttctgtgggt tccaccacta tggagggcag
 60
 acgggtccttc agtttgcagc agcgggtcaaa atctgacggg tctgggaaga tctggttagga
 120

aaggccatcc ttgcgggggc tgaggccgat ctctccatg ggctgagtc tcaagtggaga
 180
 gcggggaggt gtgtccacct tgccgagtc gctagccgtg gggctgtctt gggaaggcgg
 240
 acggcgagcg cccggtgtcc gcactcggcc gcctgcccgtg cccgtctgcy cccgtgtcat
 300
 cctcactcgg gacgcaggga ccgtttttaa atcacagggg cgtgtgtcag cctgccctag
 360
 gacttcatgt ctatatattt ccccatcacc tgccccgaact atctgagatc ggccaagatg
 420
 actgagggtg tgatgaacac ccagcccatg gaggagatcg gcctcagccc ccgcaaggat
 480
 ggcttttctt accagatctt ccagaccgc tcagattitg accgctgctg caaactgaag
 540
 gaccgtctgc cctccatagt ggtggaaccc acagaagggg aggtggagag cggggagctc
 600
 cggtggcccc ctgaggagtt cctgggtccg gaggatgagc aagataactg cgaagagaca
 660
 gcgaagaaa ataaagagca gtagagtccc tgtggactcc catgggtcat accagccagc
 720
 atctgttctt gaactgtgtt tttcccatca tgacggaaga agagagttag ccgcaattgt
 780
 tctgaaaatg tcaaacgagg ctctgttttt gcacctgcag atcaccgagt tggttttctt
 840
 tctttttctt gccttttttt ttttttgaaa ttgcccagc agtggagccc tctgacaatt
 900
 tgcaaggccc tctgagaaaag gaagctgctt agagccaggg ggtagtgagg tgaggggagc
 960
 gagtgtctgt tttgagatca ttatctgaac tcaggcagcc tagtagaggc agtgggtggg
 1020
 ttccaatggg tcttggtggg tgggaggtgg ggcatgtgca aagcaagcaa ggaacatttg
 1080
 gggtaagaaa acaaacatga ggcaaaaaaa aa
 1112

<210> 5806

<211> 105

<212> PRT

<213> Homo sapiens

<400> 5806

Met Ser Ile Tyr Phe Pro Ile His Cys Pro Asp Tyr Leu Arg Ser Ala
 1 5 10 15
 Lys Met Thr Glu Val Met Met Asn Thr Gln Pro Met Glu Glu Ile Gly
 20 25 30
 Leu Ser Pro Arg Lys Asp Gly Leu Ser Tyr Gln Ile Phe Pro Asp Pro
 35 40 45
 Ser Asp Phe Asp Arg Cys Cys Lys Leu Lys Asp Arg Leu Pro Ser Ile
 50 55 60
 Val Val Glu Pro Thr Glu Gly Glu Val Glu Ser Gly Glu Leu Arg Trp
 65 70 75 80
 Pro Pro Glu Glu Phe Leu Val Gln Glu Asp Glu Gln Asp Asn Cys Glu
 85 90 95
 Glu Thr Ala Lys Glu Asn Lys Glu Gln

100

105

<210> 5807

<211> 1429

<212> DNA

<213> Homo sapiens

<400> 5807

```

accctccat ttctcgccat ggcctctgca ctgctcctga tccctgctgc cctcgccctc
60
ttcatctctgg cctttggcac eggagtggag ttctgtgcct ttacctccct tcggccacct
120
cttggaggga tcccggagtc tgggtggtccg gatgcccgc agggatggct ggtgccctg
180
caggaccgca gcatccttgc ccccttgga tgggatctgg ggtcctctgt tctatttgg
240
gggcagcaca gcctcatggc agctgaaaga gtgaaggcat ggacatccc gtactttggg
300
gtccttcaga ggtcactgta tgtggcctgc actgccctgg ccttcagct ggtgatgcgg
360
tactggggag ccatacccaa aggcctctgt ttgtgggagg ctgggctga gccatggggc
420
acctgggtgc gcctcctctg ctttgtctc catgtcatct cctggctct catctttagc
480
atccttctcg tctttgacta tgcctgagctc atgggcctca aacagggtata ctaccatgtg
540
ctggggctgg gcgagcctct ggcctgaaag tctcccccgg ctctcagact cttctccac
600
ctgcgccacc cagtgtgtgt ggagctgctg acagtgtgtt ggggtggtgc taccctgggc
660
acggaccgtc tctccttgc ttctcctct accctctacc tgggcctggc tcacgggctt
720
gatcagaag acctccgcta cctccgggac cagctacaaa gaaaactcca cctgctctct
780
cgccccagg atggggaggc agagtggagg gctcactctg gttacaagcc ctgttcttcc
840
tctccactg aattctaaat ccttaacatc caggccctgg ctgcttctatg ccagaggccc
900
aaatccatgg actgaaggag atgccccttc tactacttga gactttatc tctgggtcca
960
gctccatacc ctaaattctg agtttcagcc actgaactcc aagggtccact tctcaccagc
1020
aaggaaagat ggggtatgga agtcatctgt ccttccactg tttagagcat gacactctcc
1080
cctcaacag cctcctgaga aggaaggat ctgccctgac cactccctg gcaactgtac
1140
ttgcctctgc gcctcagggg tccctctctg caccgctggc ttccactcca agaagggtga
1200
ccagggtctg caagttcaac ggtcatagct gtcctccag gccccaacct tgcctacca
1260
ctcccgccc tagtctctgc acctccttag gccctgcctc tgggctcaga cccaaccta
1320
gtcaagggga ttctcctgct cttaactcga tgacttgggg ctccctgctc tcccaggaa
1380

```

gatgctctgc aggaaaaataa aagtcagcct ttttctacaa aaaaaaaaaa
1429

<210> 5808

<211> 261

<212> PRT

<213> Homo sapiens

<400> 5808

Ala Pro Ala Leu Leu Leu Ile Pro Ala Ala Leu Ala Ser Phe Ile Leu
1 5 10 15
Ala Phe Gly Thr Gly Val Glu Phe Val Arg Phe Thr Ser Leu Arg Pro
20 25 30
Leu Leu Gly Gly Ile Pro Glu Ser Gly Gly Pro Asp Ala Arg Gln Gly
35 40 45
Trp Leu Ala Ala Leu Gln Asp Arg Ser Ile Leu Ala Pro Leu Ala Trp
50 55 60
Asp Leu Gly Leu Leu Leu Phe Val Gly Gln His Ser Leu Met Ala
65 70 75 80
Ala Glu Arg Val Lys Ala Trp Thr Ser Arg Tyr Phe Gly Val Leu Gln
85 90 95
Arg Ser Leu Tyr Val Ala Cys Thr Ala Leu Ala Leu Gln Leu Val Met
100 105 110
Arg Tyr Trp Glu Pro Ile Pro Lys Gly Pro Val Leu Trp Glu Ala Arg
115 120 125
Ala Glu Pro Trp Ala Thr Trp Val Pro Leu Leu Cys Phe Val Leu His
130 135 140
Val Ile Ser Trp Leu Leu Ile Phe Ser Ile Leu Leu Val Phe Asp Tyr
145 150 155 160
Ala Glu Leu Met Gly Leu Lys Gln Val Tyr Tyr His Val Leu Gly Leu
165 170 175
Gly Glu Pro Leu Ala Leu Lys Ser Pro Arg Ala Leu Arg Leu Phe Ser
180 185 190
His Leu Arg His Pro Val Cys Val Glu Leu Thr Val Leu Trp Val
195 200 205
Val Pro Thr Leu Gly Thr Asp Arg Leu Leu Leu Ala Phe Leu Leu Thr
210 215 220
Leu Tyr Leu Gly Leu Ala His Gly Leu Asp Gln Gln Asp Leu Arg Tyr
225 230 235 240
Leu Arg Ala Gln Leu Gln Arg Lys Leu His Leu Leu Ser Arg Pro Gln
245 250 255
Asp Gly Glu Ala Glu
260

<210> 5809

<211> 2009

<212> DNA

<213> Homo sapiens

<400> 5809

nttttttttt ttttttttaa gatggaatct cgctccatca cccaggctgg agggcaatgg
60
cgtgatctcg gctcaactgca gctccacct cctgggttca agcaattctc ctgcctcagc
120

ctcctgagta gttggcacta taagcatcca acaccatgac cggetaatat ttgtgttttt
180
ggtagaagcg ggggtttcacc atgttggtcca ggctgggtctc aaactcctga cctcagggtga
240
tccaccacc tccctctccc aaagtgtctgg tattacaggc gtgagccacc gagcccaacc
300
tgagtcacga ttctctcggg taacaggagg gccccccagg gaaagagggc gggggggcgg
360
tctgcggaag ggcgatgggt ctgaccaccg cacactctgg cgcctctccc gagtctccag
420
aaactctacg cctccttccc agcgggcaca ggccagcccg gctgacccct ccccggggaag
480
caggaggagc cctgcagaaa tcccaggagg gaagtggggg ctggaacggc ctccctgcct
540
ctacgctcag gcggggaagc ctagtgtcag agtgccgtgc caggaggtcc gggccacgtc
600
cctgcacct ccccgagct gctcccagga cgggcagagg ctctgggtgt ccacaccctc
660
tgggtgaacg ctggggaatt gcttggcgt gtgctgtcac tgacctgac aaggcccaag
720
tctgcacatc tgtgcacagc agagggaccg caccaggcca ggcactcacc tccgagctcc
780
ggtcccaagga atgtggatga agagaggctg ctgtgcactc cagtgaagtg ggtgcctctg
840
ctgaaggtct aggggagatg ggggtgggat gagaggtgct ggggcttcac agggcccccc
900
tccaccccg attacagctg gagaggcagg actcaaaccc atgtccccc gtccaaaccc
960
ctggaaggct gggcccttct ctcagcctca gtttccccc acccctcgcc cccaactctg
1020
gggacaggaa actcagggtc tcaggcctca cggggactcc taccgggtg ggggtcaaag
1080
aggagctgct ctggtgcgg ctgccccagg agcctgagct gggcggttc tcaagacctg
1140
caggcaggac agagagagtt atgggtcacc ctcacgctg cccagctcta aaagcttcg
1200
ttcatcatct caggggcaaa cctcagtga cccggggggc ttgtggaacc ettcctaacc
1260
cagctcacc cagcccgact catgaggaca ccagtcagca gctaacacc agacaccctg
1320
ggactcggag caattacagg tccataaact taaattaact ctctcgtcg ctctctgtg
1380
gccaaactct acccaccac taaagcccca gctttcatac cctccttggg caaagacctc
1440
actctcacgc cgaacctct ccccatcagc ccaagctccc tccctctggc ccagccctga
1500
ctatgtggac tgggggtctct gtgtcagatg cagactcttc tgacctgtg agaaaggctc
1560
atgacagcat gaggtgtgag aagctaaccc atgagctctg gggaggccca ggggtctcct
1620
gtccccacct gccagtgtg gaagtggggc gcctcttgc tgaagcagca gcagaggctc
1680
accatcggg caggaggtg gcagcccggt aggggtggagc cgaatctcat caccaggaa
1740

caagccagct gtggagacca gaagcctgcg tggggcagga gttcccgcg cagcaagggg
 1800
 cgggacgagg accttggtcc cggggcgggg cgggcggggc ccttatctct cagaacactc
 1860
 acaggcaacg cccaggactc cagaatcttc tgccctgggc agggagggcc tgcttgatc
 1920
 cttcccccct ccatcgggg ccacagagca caccctgga gaagcaggag cgggcccctg
 1980
 gcctcctcag cttggccacg gagtgtctg
 2009

<210> 5810

<211> 52

<212> PRT

<213> Homo sapiens

<400> 5810

Xaa	Phe	Phe	Phe	Phe	Phe	Lys	Met	Glu	Ser	Arg	Ser	Ile	Thr	Gln	Ala
1				5					10					15	
Gly	Gly	Gln	Trp	Arg	Asp	Leu	Gly	Ser	Leu	Gln	Pro	Pro	Pro	Pro	Gly
		20					25					30			
Phe	Lys	Gln	Phe	Ser	Cys	Leu	Ser	Leu	Leu	Ser	Ser	Trp	His	Tyr	Lys
		35				40						45			
His	Pro	Thr	Pro												
		50													

<210> 5811

<211> 1607

<212> DNA

<213> Homo sapiens

<400> 5811

gttagcaaga aagtgatgtg ttccgggtag gggaaattctg ttttggattt attttgtctt
 60
 tcctgagaaa agcatcaciaa aaagagatgt ttgccatcc tgtttctctg ggtgatggga
 120
 agagaccggg ggtgatgggt gtgctggctg gacgtgggtg gtttcacagg acctgctgtg
 180
 tctgagagga gccatgcggt gattagaagc ttggaggctg cagatctgcc gacacccag
 240
 gccatcgagc cccaggccat cgtgcagcag gtcccagccc ccagtcgaat gcagatgccg
 300
 cagggggaacc cgtgctgtgt gtccacacc ctgcaggagc tgctggccag ggacaccgtg
 360
 caggtggagc tcattccgga gaagaagggc ctcttctcta agcatgtgga gtatgaggtt
 420
 tccagccagc gcttcaagtc ctcggtatac agacgggtaca atgacttctg ggtcttccag
 480
 gagatgctcc tgcacaagtt ccctaccgt atggtgcctg ccctgccacc caagagaagt
 540
 ctgggagctg acagggagtt catcgaggcc agggaggagc ccctgaagcg cttctgtaac
 600
 ctggtggcgc gacaccccct gttctccgag gatgtggctc tcaagctctt cctgtctctc
 660

```
<210> 5812
<211> 463
<212> PRT
<213> Homo sapiens
```

4975

```

115          120          125
Ala Leu Pro Pro Lys Arg Met Leu Gly Ala Asp Arg Glu Phe Ile Glu
130          135          140
Ala Arg Arg Arg Ala Leu Lys Arg Phe Val Asn Leu Val Ala Arg His
145          150          155          160
Pro Leu Phe Ser Glu Asp Val Val Leu Lys Leu Phe Leu Ser Phe Ser
165          170          175
Gly Ser Asp Val Gln Asn Lys Leu Lys Glu Ser Ala Gln Cys Val Gly
180          185          190
Asp Glu Phe Leu Asn Cys Lys Leu Ala Thr Arg Ala Lys Asp Phe Leu
195          200          205
Pro Ala Asp Ile Gln Ala Gln Phe Ala Ile Ser Arg Glu Leu Ile Arg
210          215          220
Asn Ile Tyr Asn Ser Phe His Lys Leu Arg Asp Arg Ala Glu Arg Ile
225          230          235          240
Ala Ser Arg Ala Ile Asp Asn Ala Ala Asp Leu Leu Ile Phe Gly Lys
245          250          255
Glu Leu Ser Ala Ile Gly Ser Asp Thr Thr Pro Leu Pro Ser Trp Ala
260          265          270
Ala Leu Asn Ser Ser Thr Trp Gly Ser Leu Lys Gln Ala Leu Lys Gly
275          280          285
Leu Ser Val Glu Phe Ala Leu Leu Ala Asp Lys Ala Ala Gln Gln Gly
290          295          300
Lys Gln Glu Glu Asn Asp Val Val Glu Lys Leu Asn Leu Phe Leu Asp
305          310          315          320
Leu Leu Gln Ser Tyr Lys Asp Leu Cys Glu Arg His Glu Lys Gly Val
325          330          335
Leu His Lys His Gln Arg Ala Leu His Lys Tyr Ser Leu Met Lys Arg
340          345          350
Gln Met Met Ser Ala Thr Ala Gln Asn Arg Glu Pro Glu Ser Val Glu
355          360          365
Gln Leu Glu Ser Arg Ile Val Glu Gln Glu Asn Ala Ile Gln Thr Met
370          375          380
Glu Leu Arg Asn Tyr Phe Ser Leu Tyr Cys Leu His Gln Glu Thr Gln
385          390          395          400
Leu Ile His Val Tyr Leu Pro Leu Thr Ser His Ile Leu Arg Ala Phe
405          410          415
Val Asn Ser Gln Ile Gln Gly His Lys Glu Met Ser Lys Val Trp Asn
420          425          430
Asp Leu Arg Pro Lys Leu Ser Cys Leu Phe Ala Gly Pro His Ser Thr
435          440          445
Leu Thr Pro Pro Cys Ser Pro Glu Asp Gly Leu Cys Pro His
450          455          460

```

<210> 5813

<211> 2991

<212> DNA

<213> Homo sapiens

<400> 5813

nttgatgtat gtaattgatc actttattaa ctggcaaaaa gaagccttgt tgagggtgata

60

aaccgaactt cattacatcc tgtatgtcga gagcaaacac attgggacgt ggctgatggg

120

ttccatttc aagctgatt ctgatgatga taatgtttaa gtacattga ttgttctcta
180
attgaatttt tctttcttta ggctcttctt gaagagctga aagctgccta ccggaggctc
240
tgtatgtctt accatccaga caagcacaga gaccagagc tcaagtcaca ggcggaacga
300
ctgtttaacc ttgttcacca ggcttatgaa gtgcttagtg acccccaaac cagggccatc
360
tatgatatat atgggaagag aggactggaa atggaaggat gggaggttgg ggaaggagg
420
agaacccttg ctgaaattcg agaggagttt gagcggctgc agagagagag aagaagagag
480
agattgcagc agcgaaccaa tcccaagctt tgtgacaaca aactgtgctc tgcagtttct
540
atcccggtga atccgacccg gcctgaccac tgtcctagct cggaacctag acaagaacac
600
cgtgggttac ctgcagtggc gatggggtat ccagtcagcc atgaacacta gcatcgtccg
660
agacactaaa accagccact tcaactgtgc cctgcagctg ggaatccctc actcctttgc
720
actgatcagc tatcagcaca aattccaaga tgacgatcag actcgtgtga aagatccct
780
gcagagcagg cttctttggg acggtggttg agtacggagc tgagaggaag atctccaggc
840
acagcgtttt ggggtgcagct gtcagcgttg gagtccaca gggcgtttct ctcaaagtca
900
agctcaacag ggccagtcag acatacttct tccctattca cttgacggac cagctcttgc
960
ccagcgccat gttctatgcc accgtggggc ctctagtgtt ctactttgcc atgcaccgtc
1020
tgatcatcaa accatacctc agggctcaga aagagaagga attggagaag cagagggaaa
1080
gcgccgccac cgatgtgctg cagaagaagc aagaggcgga gtccgctgtc cggctgatgc
1140
aggaatctgt ccgaaggata attgaggcag aagagtcagc aatgggcctc atcatcgtca
1200
atgcctggta cgggaagttt gtcaatgaca agagcaggaa gagcgagaag gtgaagggtga
1260
ttgacgtgac tgtgccctcg cagtgcctgg tgaaggactc gaagctcatc ctacaggagg
1320
ctccaaggc tgggctgcct ggcttttatg acccgtgtgt gggggaagag aagaacctga
1380
aagtgtctta tcagttccgg ggcgtctgc atcaggtgat ggtgctggac agtgaggccc
1440
tcggataacc aaagcagtc caccagatcg atacagatgg ataaactgcc aagaaccaga
1500
tttttaaaag gccgcaaaaa atcttttctt gggagtctac aaatttggaa atgaaaaaac
1560
ccagacatca gatgttttta ttttatatta ttattataga agtggttacc attatcaatt
1620
atgtgaaggg acatgcagac accccagctt ttgaggggtg tgggggtagg actgaggcag
1680
cccactggg aaccagactg cagcctggcc catggctgtt tcccaagga tcagttcctg
1740

gagggaaagg ctctggccct gactccgctg tgtcccgagc acacgtgctg accgcagccc
 1800
 gccgccctgt agttcttggc tgggtctgga ggtgtctgtg gagcaccctg ccctcaccac
 1860
 aggagcgtga gccacttctg cagtccacgc tgaacatggg aaacaacctg aaaagcaggc
 1920
 agggctcccc gtccaggagc ctctgctgtg ctggcttccc atgaccacct cctcttctgt
 1980
 aaatattact gcttgaatct ggagcagatt gcgggtttat aaaactgctt tttatctgag
 2040
 aacaaacggg tttggaaatt agtcgtcttt tttccctact ccagagctg ctcaagtcac
 2100
 tccaccggcc ccctcggtt gggacagggt agtgtaactc ccgatcccg ggcctagccc
 2160
 tgacacaggt ggcttccctg atcccgttgg gaaaacgcc tgcaccagc gggcttgagc
 2220
 tggctgtgt ccctccaccg ctgacccac ccacctccag agtgacgtg tgggcaaggg
 2280
 cagctcaaga ggacaggacc aggcgcttgg caagacatca gacacacca acccaaggcc
 2340
 gtggacccca ggcccggccc gtggtaccca gcagggtgca ctgcagctcc ccgctctgctg
 2400
 aggtccagcg tcttcacagg aacaccaggg cctgtgtctc ggagccttcc ttcagacct
 2460
 tcttccagct gcccaactgg gatgcagaat gcagcggagc taggaccccc tccacggcct
 2520
 ggacctggc tgcagtaaag ttacgtgagg cctgtctctc ggggcctgga agtgagcacc
 2580
 atcagttgct cttgctgacc cctcggagca agcgcgcgac aggtggtggc tgagacagct
 2640
 ggcgcggggg gccccaagct gcgcggcct ccagccacc cagagctgtt gctgaagtca
 2700
 ggcctccctc ccagcactg gtatctgagt aacggctaa aacctcttc ctctgggttt
 2760
 gaaaagcagt tcgggttctc caattctgta acattcatct ccattttttt aaaaggtttc
 2820
 tctgacggcc ccacggcccc agccgcgggt agcgtcgtgt tgcagtagcc tgggccccgg
 2880
 gcttcccggt gcgctctgcc gcagggtgct ctgggcaccc atcctctgct tttcatttgc
 2940
 agtcgactgt acagaaggca ctaccacaa taaacctttc ctgaaagcag a
 2991

<210> 5814

<211> 149

<212> PRT

<213> Homo sapiens

<400> 5814

Ala Ser Ser Glu Glu Leu Lys Ala Ala Tyr Arg Arg Leu Cys Met Leu
 1 5 10 15
 Tyr His Pro Asp Lys His Arg Asp Pro Glu Leu Lys Ser Gln Ala Glu
 20 25 30
 Arg Leu Phe Asn Leu Val His Gln Ala Tyr Glu Val Leu Ser Asp Pro

```

      35              40              45
Gln Thr Arg Ala Ile Tyr Asp Ile Tyr Gly Lys Arg Gly Leu Glu Met
  50              55              60
Glu Gly Trp Glu Val Val Glu Arg Arg Arg Thr Pro Ala Glu Ile Arg
  65              70              75              80
Glu Glu Phe Glu Arg Leu Gln Arg Glu Arg Glu Glu Arg Arg Leu Gln
      85              90              95
Gln Arg Thr Asn Pro Lys Leu Cys Asp Asn Lys Leu Cys Ser Ala Val
      100              105              110
Phe Ile Pro Trp Asn Pro Thr Arg Pro Asp His Cys Pro Ser Ser Glu
      115              120              125
Pro Arg Gln Glu His Arg Gly Leu Pro Ala Val Ala Met Gly Tyr Pro
      130              135              140
Val Ser His Glu His
145

```

<210> 5815

<211> 590

<212> DNA

<213> Homo sapiens

<400> 5815

```

ttcatccagg ctgctcttgg ggatcagcca cgtgatatcc tttgtggggc agctgatgaa
  60
gtttctagctg ttctaaagaa tgaagagctg cgggacaagg aaaggcgaaa ggagattgac
  120
ctgctgtctgg gtcaaacaga tgataccaga taccatgtgc tagtgaacct gggcctcccg
  180
agttctcttta gttttgggct tgtagatgat gccaccatc tcatcaatgc cctccgacag
  240
cagagtataa ccttctatct tgttgatgtc atgcgggtcc tcatcaagct ttcttgegtt
  300
ggctctttct tctcctctgca tctgcgggtt ggccggttga gccttgctct ccatacgggt
  360
gccctccagc ttcccaacaa gggacagcac ctctcctgtg gggttcattcc ggcgggctcg
  420
gtcaatgaga gaacgggtcag cttggagcac aagattcgag ttgcgcttgt actcgattg
  480
cagactacgg gcggttacat ccgccatggc cgcggtgctc cggaggcttc agaccaccac
  540
gcctccatac cgcaagctgc aaacggcgcc agatctctgc tcttggcgcc
  590

```

<210> 5816

<211> 196

<212> PRT

<213> Homo sapiens

<400> 5816

```

Phe Ile Gln Ala Ala Leu Gly Asp Gln Pro Arg Asp Ile Leu Cys Gly
  1              5              10              15
Ala Ala Asp Glu Val Leu Ala Val Leu Lys Asn Glu Lys Leu Arg Asp
      20              25              30
Lys Glu Arg Arg Lys Glu Ile Asp Leu Leu Leu Gly Gln Thr Asp Asp

```

```

      35              40              45
Thr Arg Tyr His Val Leu Val Asn Leu Gly Leu Pro Ser Leu Phe Ser
  50              55              60
Phe Gly Leu Val Asp Asp Ala His His Leu Ile Asn Ala Leu Arg Gln
  65              70              75              80
Gln Ser Ile Thr Leu His Leu Val Asp Val Met Pro Val Leu Ile Thr
      85              90              95
Leu Ser Ser Leu Gly Ser Ser Phe Leu Leu His Leu Arg Phe Gly Pro
      100              105              110
Leu Ser Leu Val Ser His Thr Gly Ala Leu Gln Leu Pro Asn Lys Gly
      115              120              125
Gln His Leu Ser Cys Gly Phe Ile Pro Ala Gly Pro Val Asn Glu Arg
      130              135              140
Thr Val Ser Leu Glu His Lys Ile Arg Val Arg Leu Val Leu Val Leu
      145              150              155              160
Gln Thr Thr Gly Gly Tyr Ile Arg His Gly Arg Gly Cys Ser Glu Ala
      165              170              175
Ser Asp His His Ala Ser Ile Pro Gln Ala Ala Asn Gly Arg Arg Ser
      180              185              190
Leu Leu Leu Ala
      195

```

<210> 5817

<211> 648

<212> DNA

<213> Homo sapiens

<400> 5817

```

cccaaatgag cagaactaca aagcaagccc caagatggag tgagcaacaa caatgaaatt
  60
cagaagaaaag ccaccatggg gcagttacag aacaaggaga acaataacac caaggacagc
  120
cctagtaggc agtgctcctg ggacaagtct gagtcacccc agagaagcag catgaacaat
  180
ggatcccccac cagctctatc aggcagcaaa accaacagcc caaagaacag tgttcacaag
  240
ctagatgtgt ctagaagccc ccctctcatg gtcaaaaaga acccagcctt taataagggt
  300
agtgggatag ttaccaatgg gtccttcagc agcagtaatg cagaaggctc tgagaaaacc
  360
caaacaccac ccaatgggag cctacagccc agaaggagct cttcactgaa ggtatctggt
  420
accaaaatgg gcacgcacag tgtacagaat ggaacgggtc gcatgggcat tttgaacagc
  480
gacacactcg ggaacccccc aatgtttcga aacatgagct ggctgccaaa tggctatgtg
  540
accctgaggg ataacaagca gaagaacaaa gctggagagt taggccagca caacagactg
  600
tcacctatga taatgtccat cacagttctc catgatgaac ttgatgac
  648

```

<210> 5818

<211> 191

<212> PRT

<213> Homo sapiens

<400> 5818

```

Met Gly Gln Leu Gln Asn Lys Glu Asn Asn Thr Lys Asp Ser Pro
 1          5          10          15
Ser Arg Gln Cys Ser Trp Asp Lys Ser Glu Ser Pro Gln Arg Ser Ser
          20          25          30
Met Asn Asn Gly Ser Pro Thr Ala Leu Ser Gly Ser Lys Thr Asn Ser
          35          40          45
Pro Lys Asn Ser Val His Lys Leu Asp Val Ser Arg Ser Pro Pro Leu
          50          55          60
Met Val Lys Lys Asn Pro Ala Phe Asn Lys Gly Ser Gly Ile Val Thr
          65          70          75          80
Asn Gly Ser Phe Ser Ser Ser Asn Ala Glu Gly Leu Glu Lys Thr Gln
          85          90          95
Thr Thr Pro Asn Gly Ser Leu Gln Ala Arg Arg Ser Ser Ser Leu Lys
          100          105          110
Val Ser Gly Thr Lys Met Gly Thr His Ser Val Gln Asn Gly Thr Val
          115          120          125
Arg Met Gly Ile Leu Asn Ser Asp Thr Leu Gly Asn Pro Thr Asn Val
          130          135          140
Arg Asn Met Ser Trp Leu Pro Asn Gly Tyr Val Thr Leu Arg Asp Asn
          145          150          155          160
Lys Gln Lys Glu Gln Ala Gly Glu Leu Gly Gln His Asn Arg Leu Ser
          165          170          175
Pro Met Ile Met Ser Ile Thr Val Leu His Asp Glu Leu Asp Asp
          180          185          190

```

<210> 5819

<211> 1652

<212> DNA

<213> Homo sapiens

<400> 5819

```

gatattcttt tggaaacgta atattggcct tggggctctc cagcccttgg ggacttccaa
 60
tgggatctta gaagcagccg aagcagcgtg agggcgcccg agggccagcc acgatttgaa
 120
cgctctgctt tgcagctctt ctggaccgag gagcccaaa cctaccctc accattcacc
 180
aggtcctgtg ggaagagcag cgtggagggt ggctgaggtt agaaggtgca gagctgggaa
 240
gaagattgtg agctgagtat tggacatctg ttcttgaata gtccctgggc ctgccatagg
 300
aaaggaagtt ctccagggtt acagtcttta tccgcgtgaa tacacatggc tctgttacga
 360
aaaattaatc aggtgctgct gttccttctg atcgtgacct tctgtgtgat tctgtataag
 420
aaagttcata aggggactgt gcccaagaat gacgcagatg atgaatccga gactcctgaa
 480
gaactggaag aagagattcc tgtggtgatt tgtgctgcag cagggaggat ggggtgccatt
 540
atggctgcca tcaatagcat ctacagcaac cctgacgcca acatcttgtt ctatgtagt
 600

```


ggactccgga atactctgac tcgaatacga aaatggattg aacattccaa actgagagaa
 660
 ataaacttta aaatcgtgga attcaacccg atggctcctca aagggaagat cagaccagac
 720
 tcatcgaggc ctgaattgct ccagcctctg aactttgttc gattttatct ccctctactt
 780
 atccaccaac acgagaaaagt catctatttg gacgatgatg taattgtaca aggtgatatac
 840
 caagaactgt atgacaccac cttggccctg ggcacgcgg cggtctttct agatgactgc
 900
 gatttgccct ctgctcagga cataaacaga ctgctgggac ttcagaacac atatatgggc
 960
 tatctggact acoggaagaa ggccatcaag gaccttggca tcagccccac cactgctctt
 1020
 ttcaatcctg gtgtgattgt tgccaacatg acagaatgga agcaccagcg catcaccaag
 1080
 caattggaga aatggatgca aaagaatgtg gactacgtga aggtctctct accatttttt
 1140
 ccattgcttg aaacaaaatc attcaattaa tttccacac atagtccaag ggtagaagt
 1200
 atttcacagt catctcaggt cagattttct tacagaggca atgttaagaa agaaaagggg
 1260
 gcagtcaatt aaacaccttc ctcaaaagat ataatcaga ggaatcaaga tcctgtggag
 1320
 cgaggagtcc ctgattatac attttcctag taagctgttg aaaaatgtga ctgaatctt
 1380
 ttccacaaaa caattctcat ttatcttagt tgagtttccc ctctaacat agattttttt
 1440
 attaaggatt attatataaa gtcaattttg ctttttaagg ttatttttta taatttataa
 1500
 tttttcgtta tcggagtttt aaatagaga agataaaaat aagtctaata caagcactat
 1560
 tatcccatca ttgtattgcc tagcagttct gtgtatctgg atattttaat accatcataa
 1620
 ccttgaattt gcaagtaaag ttattctaaa ta
 1652

<210> 5820

<211> 274

<212> PRT

<213> Homo sapiens

<400> 5820

Met Ala Leu Leu Arg Lys Ile Asn Gln Val Leu Leu Phe Leu Leu Ile
 1 5 10 15
 Val Thr Leu Cys Val Ile Leu Tyr Lys Lys Val His Lys Gly Thr Val
 20 25 30
 Pro Lys Asn Asp Ala Asp Asp Glu Ser Glu Thr Pro Glu Glu Leu Glu
 35 40 45
 Glu Glu Ile Pro Val Val Ile Cys Ala Ala Ala Gly Arg Met Gly Ala
 50 55 60
 Thr Met Ala Ala Ile Asn Ser Ile Tyr Ser Asn Pro Asp Ala Asn Ile
 65 70 75 80
 Leu Phe Tyr Val Val Gly Leu Arg Asn Thr Leu Thr Arg Ile Arg Lys

	85		90		95										
Trp	Ile	Glu	His	Ser	Lys	Leu	Arg	Glu	Ile	Asn	Phe	Lys	Ile	Val	Glu
		100						105					110		
Phe	Asn	Pro	Met	Val	Leu	Lys	Gly	Lys	Ile	Arg	Pro	Asp	Ser	Ser	Arg
		115					120					125			
Pro	Glu	Leu	Leu	Gln	Pro	Leu	Asn	Phe	Val	Arg	Phe	Tyr	Leu	Pro	Leu
		130					135					140			
Leu	Ile	His	Gln	His	Glu	Lys	Val	Ile	Tyr	Leu	Asp	Asp	Val	Ile	
		145				150				155			160		
Val	Gln	Gly	Asp	Ile	Gln	Glu	Leu	Tyr	Asp	Thr	Thr	Leu	Ala	Leu	Gly
			165					170				175			
His	Ala	Ala	Ala	Phe	Ser	Asp	Asp	Cys	Asp	Leu	Pro	Ser	Ala	Gln	Asp
		180					185					190			
Ile	Asn	Arg	Leu	Val	Gly	Leu	Gln	Asn	Thr	Tyr	Met	Gly	Tyr	Leu	Asp
		195					200					205			
Tyr	Arg	Lys	Lys	Ala	Ile	Lys	Asp	Leu	Gly	Ile	Ser	Pro	Ser	Thr	Cys
		210				215					220				
Ser	Phe	Asn	Pro	Gly	Val	Ile	Val	Ala	Asn	Met	Thr	Glu	Trp	Lys	His
		225				230				235			240		
Gln	Arg	Ile	Thr	Lys	Gln	Leu	Glu	Lys	Trp	Met	Gln	Lys	Asn	Val	Glu
			245					250				255			
Tyr	Val	Lys	Ala	Ser	Leu	Pro	Phe	Phe	Pro	Cys	Leu	Glu	Thr	Lys	Ser
			260				265					270			
Phe	Asn														

<210> 5821

<211> 3292

<212> DNA

<213> Homo sapiens

<400> 5821

```

ngcctgtaac cccaacactt tgggaggcca cgccaggagg atcacttgag gccaggagtt
60
cgagaccagc ctggtcaaca tagcgagact tcgtcactag aaaaaattta aaaaattttt
120
taaaaaggaa aaaatataac ttagagcccc ctatgaaaaa ctaaattagc atcatgacag
180
gatacacttt ggggagttaa atttcacagt acctttattt aattccaagc catagagcct
240
ggtaatatTT ttctctttat cagctgtggc actaaaaataa cagtggattt ttctctctta
300
gacattcttc ttttggccga tgaataattt gacttcgac tttcattgtc ttctctgagt
360
gcaaatgaag atgatgaagt cttcttcgga ccttttgac ataaagaag atgtattgct
420
gccagcttgg aattaaaaaa tcggttccc gaacagcctc cgttgccac atctgagagt
480
ccctttgctt ggagccctct ggcgggggag aagttcgtgg aggtgtacaa agaagctcac
540
ttactggctt tacacattga gacgagcagc cggaaccagg cagcccaagc tgccaagcct
600
gaagaccctc ggagccaggg cgtggaaaga ttcatacagg agtcaaaatt aaaaataaac
660

```

ctcttttgaaga aagaaaagga aatgaagaaa agccccacgt ctcttaaaag ggagacatac
720
tacctgtcag acagcccctt gctgggggcc cctgtgggtg agcctcgggt cttggcctcc
780
tccccggccc tgcccagctc tgggtgcccag gcccgccctca cccgggcgcc ggggcctccg
840
cactctgctc atgcttttgc cagggaatca tgcactgctc atgctgcaag tcaggcagcg
900
actcagagga agcccgggac caaattgctg ctgcctcgag cggcctctgt tagaggaaga
960
agcatccctg gggctgcgga gaagcccaag aaagagattc cagctagctc ttccaggaca
1020
aaaatcccag ctgagaagga atcccaccgg gatgtttctcc ctgacaaaac tggccggggt
1080
gctgtcaatg tgcggccgcg cggaagccac ttgggcccagg gcaagcgggg gatccctgtt
1140
ccaaacaagt tggggctgaa gaagaccctg ttaaaagcac ccgctctac cagcaatctc
1200
gcaaggaagt cctcctcggg gctgtgtttgg agcggggcat ccagtgctgt cacatcccca
1260
gcagtggggc aagctaaatc aagtgaattt gcaagtattc ctgcaaatag ctcccgccct
1320
ctgtcaaaac tcagcaagtc aggcagaatg ggaccgccca tgcctgcggcc agctctgect
1380
gcaggccctg tgggggcctc ctccctggcag gccaaagcgg tcgatgttct tgagctggca
1440
gcggaagcag tcacggcacc cccctcagca tccccaccc aacccagac tccggaaggt
1500
ggcggccagt ggcctgaactc cagttgcgct tggtcagaat cttctcaatt gaataagact
1560
agaagtatca gacggcgaga ttctgtctca aattccaaga caaagggtat gctactcct
1620
acaaatcaat ttaaaattcc taagttttct attgggtact ccccgagac ctcaacacca
1680
aagcttttgc gggcacagcg gccgcagtcg tgcacgtcag ttggcagggt cactgtccac
1740
agcaccocgg ttagacgctc atctgggcca gcaccacaaa gcctgctgag cgcattgggt
1800
gtgtcagcct tgcccacacc cgcagccgg cgctgtctgt gccttcacc gatgaccccc
1860
aaaacgatgc ccaggccgt gggctctccc ctgtgtgtgc cagctcggag acgttctctc
1920
gagcccgca agaactctgc aatgagaact gaaccaacaa gggagagcaa cagaaagaca
1980
gattccaggc tgggtggatgt gtccctcgac aggggttctc ctccctcccg tgtgcctcag
2040
gcacttaact tttctccaga gaaagcgat tctactttct ccaaaagtac tgccacagaa
2100
gtagctcggg aggaagccaa gccgggtgga gatgcagccc ctagttaggg tcttctgtga
2160
gatatacaac tggaaacct cgggtcact ccagatgctg caagccagcc cctcattgac
2220
cttctctca tcgaactctg cgatacccca gaagcacagc tggctgtagg atctgaaagc
2280

aggcctctga tcgacctcat gacaaacact ccagacatga ataaaaatgt ggccaaacct
 2340
 tcaccgggtgg tgggacagct catagacctg agctcccctc tgateccagct gagccctgag
 2400
 gctgacaaagg agaactgtga tccccccact ctcaagttct aagccgaacc aaatcctttg
 2460
 ccttgaaaga acagccctaa agtgggtttc aacctcaga aacaagcttt aggtgggtcg
 2520
 cagtggtctta cacttgtaac cctagaactt gggaggctga ggtgggcgga ttacttgagc
 2580
 ccaggagttc gggaccagcc tgggaaatat agtgaaactc ctgtccctac aaaaaatata
 2640
 aaaattagcc ggggtgtgta gtgcatgctt gtagtccag ctactggga ggctgaagt
 2700
 ggaggatggc ctgagctcaa ggagatgcag gctgcagtgg gctgtgattg tgccactgca
 2760
 ctccagcctg ggcaccaatg tgagaacctg tcttgaaaa aaaaaaaag aaacatgttt
 2820
 tagtagaagt tttatttgaa aaagaaaaat aagcataaat atattccag tgctggagag
 2880
 ggtgggctga gggactgggg ccagcacgga ccaccaagg cctctgcttc ccgccccac
 2940
 cctcctcgct gccattctct gggctggaat gtgaagcctc agtcactcta aatgaagaat
 3000
 tttcttttga atgttttga tgtaaaatag caagtggcta tttttaaagt taagtgttga
 3060
 taaatagtta gatattctag atttacatta aattgtaaaa taaatggact tattgaagca
 3120
 tatcttgatt ttttaagctta tcttgatttt caaacatgca tagctatttt tatcactcta
 3180
 atcagtaagg ctactatcta gactcgaatg ctttcataca agtgattttc aaaaattagt
 3240
 caatataaat tgatgtcagt gcaggcccg cccgccccca gatacactag tt
 3292

<210> 5822

<211> 712

<212> FRT

<213> Homo sapiens

<400> 5822

Ile Leu Leu Leu Ala Asp Glu Lys Phe Asp Phe Asp Leu Ser Leu Ser
 1 5 10 15
 Ser Ser Ser Ala Asn Glu Asp Asp Glu Val Phe Phe Gly Pro Phe Gly
 20 25 30
 His Lys Glu Arg Cys Ile Ala Ala Ser Leu Glu Leu Asn Asn Pro Val
 35 40 45
 Pro Glu Gln Pro Pro Leu Pro Thr Ser Glu Ser Pro Phe Ala Trp Ser
 50 55 60
 Pro Leu Ala Gly Glu Lys Phe Val Glu Val Tyr Lys Glu Ala His Leu
 65 70 75 80
 Leu Ala Leu His Ile Glu Ser Ser Ser Arg Asn Gln Ala Ala Gln Ala
 85 90 95
 Ala Lys Pro Glu Asp Pro Arg Ser Gln Gly Val Glu Arg Phe Ile Gln

100 105 110
 Glu Ser Lys Leu Lys Ile Asn Leu Phe Glu Lys Glu Lys Glu Met Lys
 115 120 125
 Lys Ser Pro Thr Ser Leu Lys Arg Glu Thr Tyr Tyr Leu Ser Asp Ser
 130 135 140
 Pro Leu Leu Gly Pro Pro Val Gly Glu Pro Arg Leu Leu Ala Ser Ser
 145 150 155 160
 Pro Ala Leu Pro Ser Ser Gly Ala Gln Ala Arg Leu Thr Arg Ala Pro
 165 170 175
 Gly Pro Pro His Ser Ala His Ala Leu Pro Arg Glu Ser Cys Thr Ala
 180 185 190
 His Ala Ala Ser Gln Ala Ala Thr Gln Arg Lys Pro Gly Thr Lys Leu
 195 200 205
 Leu Leu Pro Arg Ala Ala Ser Val Arg Gly Arg Ser Ile Pro Gly Ala
 210 215 220
 Ala Glu Lys Pro Lys Lys Glu Ile Pro Ala Ser Pro Ser Arg Thr Lys
 225 230 235 240
 Ile Pro Ala Glu Lys Glu Ser His Arg Asp Val Leu Pro Asp Lys Pro
 245 250 255
 Ala Pro Gly Ala Val Asn Val Pro Ala Ala Gly Ser His Leu Gly Gln
 260 265 270
 Gly Lys Arg Ala Ile Pro Val Pro Asn Lys Leu Gly Leu Lys Lys Thr
 275 280 285
 Leu Leu Lys Ala Pro Gly Ser Thr Ser Asn Leu Ala Arg Lys Ser Ser
 290 295 300
 Ser Gly Pro Val Trp Ser Gly Ala Ser Ser Ala Cys Thr Ser Pro Ala
 305 310 315 320
 Val Gly Lys Ala Lys Ser Ser Glu Phe Ala Ser Ile Pro Ala Asn Ser
 325 330 335
 Ser Arg Pro Leu Ser Asn Ile Ser Lys Ser Gly Arg Met Gly Pro Ala
 340 345 350
 Met Leu Arg Pro Ala Leu Pro Ala Gly Pro Val Gly Ala Ser Ser Trp
 355 360 365
 Gln Ala Lys Arg Val Asp Val Ser Glu Leu Ala Ala Glu Gln Leu Thr
 370 375 380
 Ala Pro Pro Ser Ala Ser Pro Thr Gln Pro Gln Thr Pro Glu Gly Gly
 385 390 395 400
 Gly Gln Trp Leu Asn Ser Ser Cys Ala Trp Ser Glu Ser Ser Gln Leu
 405 410 415
 Asn Lys Thr Arg Ser Ile Arg Arg Arg Asp Ser Cys Leu Asn Ser Lys
 420 425 430
 Thr Lys Val Met Pro Thr Pro Thr Asn Gln Phe Lys Ile Pro Lys Phe
 435 440 445
 Ser Ile Gly Asp Ser Pro Asp Ser Ser Thr Pro Lys Leu Ser Arg Ala
 450 455 460
 Gln Arg Pro Gln Ser Cys Thr Ser Val Gly Arg Val Thr Val His Ser
 465 470 475 480
 Thr Pro Val Arg Arg Ser Ser Gly Pro Ala Pro Gln Ser Leu Leu Ser
 485 490 495
 Ala Trp Arg Val Ser Ala Leu Pro Thr Pro Ala Ser Arg Arg Cys Ser
 500 505 510
 Gly Leu Pro Pro Met Thr Pro Lys Thr Met Pro Arg Ala Val Gly Ser
 515 520 525
 Pro Leu Cys Val Pro Ala Arg Arg Arg Ser Ser Glu Pro Arg Lys Asn

```

      530              535              540
Ser Ala Met Arg Thr Glu Pro Thr Arg Glu Ser Asn Arg Lys Thr Asp
545              550              555              560
Ser Arg Leu Val Asp Val Ser Pro Asp Arg Gly Ser Pro Pro Ser Arg
              565              570              575
Val Pro Gln Ala Leu Asn Phe Ser Pro Glu Glu Ser Asp Ser Thr Phe
              580              585              590
Ser Lys Ser Thr Ala Thr Glu Val Ala Arg Glu Glu Ala Lys Pro Gly
              595              600              605
Gly Asp Ala Ala Pro Ser Glu Ala Leu Leu Val Asp Ile Lys Leu Glu
              610              615              620
Pro Leu Ala Val Thr Pro Asp Ala Ala Ser Gln Pro Leu Ile Asp Leu
625              630              635              640
Pro Leu Ile Asp Phe Cys Asp Thr Pro Glu Ala His Val Ala Val Gly
              645              650              655
Ser Glu Ser Arg Pro Leu Ile Asp Leu Met Thr Asn Thr Pro Asp Met
              660              665              670
Asn Lys Asn Val Ala Lys Pro Ser Pro Val Val Gly Gln Leu Ile Asp
              675              680              685
Leu Ser Ser Pro Leu Ile Gln Leu Ser Pro Glu Ala Asp Lys Glu Asn
              690              695              700
Val Asp Ser Pro Leu Leu Lys Phe
705              710

```

<210> 5823

<211> 2585

<212> DNA

<213> Homo sapiens

<400> 5823

```

nggggtttctc caaaaagtgt gttagttccc ggtcacctga gctccgggtg acgcggctgc
60
ggtagctgcg gatacaagcc ttccgcggtt cctgctggcg gaccccgacc tcctctgtct
120
gtctctccgc tccgccacc cgaacccgcc aaggtcctgt ccttttctct ctgtctcttg
180
ccagcggttg gccggaccgg gccgagccgg gccgccggg cgcagtcctt aaccatggcg
240
tcctctcttca agaagaaaac cgtggatgat gtaataaagg aacagaatcg agagttacga
300
ggtacacaga gggctataat cagagatcga gcagctttag agaacaaga aaaacagctg
360
gaattagaaa ttaagaaaat ggccaagatt ggtaataagg aagcttgcaa agtttttagcc
420
aaacaacttg tgcattctacg gaaacagaag acgagaactt ttgctgtaag ttcaaaaagt
480
actttctatgt ctacacaaac aaaagtgatg aattcccaaa tgaagatggc tggagcaatg
540
tctaccacag caaaaacaat gcaggcagtt aacaagaaga tggatccaca aaagacatta
600
caacaatgc agaatttcca gaaggaaaac atgaaaatgg aaatgactga agaatatgac
660
aatgatacac ttgatgacat ctttgacggt tctgatgacg aagaagaaag ccaggatatt
720

```

gtgaatcaag ttcttgatga aattggaatt gaaatttctg gaaagatggc caaagctcca
780
tcagctgctc gaagcttacc atctgcctct acttcaaagg ctacaatctc agatgaagag
840
attgaacggc aactcaaggc tttaggagta gattagtcaa aagaagtcac actattttgc
900
ttacttataa ttatgtagta taaaccaagc acagtcgaga tttcttttac aaacacatg
960
tattttgcaa aaaaaaaaaa atggagacca tgagtgaaca gttgtttctc aacctatggc
1020
tatttagaat cttttgcaa agaatgacaa tgatgcaaaa atgggaacag ttgggatttt
1080
aattagaact gtttatgagt gatgatgtgt aaaaagtga cttctctttt gcatggcaca
1140
gagaatttat attccttact tcatgtcagt ttatgttcta aatctttttc actgaatata
1200
aaaatcttgt taaatgccat taggcaccaa cttaaagggt gttgtaaaaa tattaaaagt
1260
atatcgtaa ttctgtatct gttgcttgct ttttgtaagt gattatgtgt tatgaccata
1320
ggtgggtaca gctgccaaat tattttttaa tgggtcaaaa gaagagtgtc atttaaacat
1380
ctgtctttaa caaaaactgt cataactttt cttttttttt ttccattag gagaacattc
1440
tagttggtaa atttcaaaat gtgcttgaca cctgccttaa atagcacaga cctattgtgc
1500
acatctttaa attatttcag ctggcagaaa agaattacat ttaaaactga aatcaaggcc
1560
tcaatacaaa gattatcctg gctcttttct atctctgtgt gcctaattga aatatgtact
1620
cttatttttag acacgcctct gttaaaacag gtgttttaac atgttaaaac agaccagggt
1680
ttcctgtgtc cagacctatg atgacttgct cctttgatgt cactactgtg aattgaatat
1740
aattagtaaa aatagacgat gaataaataa cactttatag taagaaaaaa atatattttg
1800
gccatctaaa aatgagaatt ataattatat gaattataat ttaaactgtt taattttgtt
1860
taatgtgtat attgaatctt ccaaattgaa gccattatc tcaattaagt actacaacta
1920
tgacaatgct tgacctacat ttctaaaata aaattcaca ttttttgata aataaactac
1980
agttttacca gaaattacta tctaagtgtg tatttagcagt attttttaag gtgaaattgc
2040
cttggatctc aatgaatgtg tagacaggga gataaaatga aggattgcca gactagttag
2100
aatagaattt aggattaggt tagttttgaa aaatgatgtt gtaatatatg ggttctaaca
2160
catcctacca taaaactcgg aggagatatg tgtaacctgg ttaatttggg atgtgtggaca
2220
ttttgggcta atactgacaa aatacatctt aggactagta tacatgtgac acggattgtc
2280
aggagggaatg aaaaactaaa ctgtatagtt tatattccgt aaacctttt ataattgtca
2340

aagattaggt tttgtattg atagtattaa atacacagtt tctcttaaca gtgatgggtg
 2400
 aaaacatttt accggattat ggaatgttta ccagaacatg ttttgattct tgaatgtaca
 2460
 taataatgcc atctaactta tttacgttct tgtttacatg tgggagcttt tgttttcaaa
 2520
 aattattttg ttaaaaaaatt tcaataaaga tttattattg ttgttctttt ctataaaaaa
 2580
 aaaaa
 2585

<210> 5824

<211> 213

<212> PRT

<213> Homo sapiens

<400> 5824

Met Ala Ser Leu Phe Lys Lys Lys Thr Val Asp Asp Val Ile Lys Glu
 1 5 10 15
 Gln Asn Arg Glu Leu Arg Gly Thr Gln Arg Ala Ile Ile Arg Asp Arg
 20 25 30
 Ala Ala Leu Glu Lys Gln Glu Lys Gln Leu Glu Leu Glu Ile Lys Lys
 35 40 45
 Met Ala Lys Ile Gly Asn Lys Lys Glu Ala Cys Lys Val Leu Ala Lys Gln
 50 55 60
 Leu Val His Leu Arg Lys Gln Lys Thr Arg Thr Phe Ala Val Ser Ser
 65 70 75 80
 Lys Val Thr Ser Met Ser Thr Gln Thr Lys Val Met Asn Ser Gln Met
 85 90 95
 Lys Met Ala Gly Ala Met Ser Thr Thr Ala Lys Thr Met Gln Ala Val
 100 105 110
 Asn Lys Lys Met Asp Pro Gln Lys Thr Leu Gln Thr Met Gln Asn Phe
 115 120 125
 Gln Lys Glu Asn Met Lys Met Glu Met Thr Glu Glu Met Ile Asn Asp
 130 135 140
 Thr Leu Asp Asp Ile Phe Asp Gly Ser Asp Asp Glu Glu Ser Gln
 145 150 155 160
 Asp Ile Val Asn Gln Val Leu Asp Glu Ile Gly Ile Glu Ile Ser Gly
 165 170 175
 Lys Met Ala Lys Ala Pro Ser Ala Ala Arg Ser Leu Pro Ser Ala Ser
 180 185 190
 Thr Ser Lys Ala Thr Ile Ser Asp Glu Glu Ile Glu Arg Gln Leu Lys
 195 200 205
 Ala Leu Gly Val Asp
 210

<210> 5825

<211> 1940

<212> DNA

<213> Homo sapiens

<400> 5825

ctccgacgat ctctcagtga aggaagctct taatgaggcc acttagcaca gtcaaggtag
 60

aaatacagac caaatgtcac ctctctgttc tgtcattctt ttatcactca gcagacagct
120
agtctgggccc aggtctctacg ctggaacgag ggacacagga atgagggatt ttttcccacc
180
cccaggaagc acataggcac acagtctgtg cctccttagc actgtggcct ctgggtcttc
240
atcagggcca gcaacctcac ctgcctcac ctgtccgtcc ttagaagggc attgtacac
300
tctgaaaagc aacggtcttc aggttccttc tttctggatt actaagatct tgattttgat
360
gtgtttcagc tggaaagggc taccctgcga aaacatgtaa gatagtgtg aactccatag
420
aacagtacca agctcatgtc agcggcttca aacacaagaa ccagtcacca aaaacagtgg
480
catcatccct ggccagatt ccaatgcaaa ggcaacccat tcagaagac tcaaccacct
540
tggaagacta gaggtgatc tgcccagcat cccatattgg gccagccatg agccagcttc
600
ccgtgactgc tcagcccttg gctcctctt gctcgttgtt ctcaccagga aagtacacgg
660
gcttaggcca ggattgggccc acagacagcc tctcatttgt ccgggctaatt tcaactcctgc
720
tgctcccttc tggcaggggt cctgtaggtc atgacagggg aggcaagggt attgagagac
780
tcgggggtctc gcgggggtggt agtttgagg gtggtcttcc ccatctccca acccctctgg
840
gccttaggtg ctgaggcccc tgccacctgt ctttctctca aaggtcagtt ttgggccagt
900
tcttgcaact aaagagcaga gatctctctg ggccctagac atttcagca aaacctggaa
960
ctttcatgcc aaacctgggg cagggcagga aacagaggaa atggctgcaa catgggagct
1020
tggagctaatt acgacctctc gccttcccc agaaggtgca ggctttctg agtcttagac
1080
cagatatggc cagttgcgca ggtttctgcc aactgtgaag tatcctctg gagcagtgac
1140
acaatcttgg cggagcattg ctacccccgc tgccccctcc acagttctg aatggtgcta
1200
aggatctgca gcagttggca acgagctggg gctggggggc gcctccatgt ccactgagat
1260
cataggacac tccaatgggg atgggacctt tccccctcc catcagaggt gctctgaccc
1320
taggttacac gggaaaagtgc ccacatgca agtctcctg agggttctgc cctaaaaggc
1380
agatgcctc atgcccgtca gctgtgaggt tcattgctac cctcgccctc actagccctc
1440
tcttccccct tgtgcagcgg accacttgcc cagtttgctg tgggtgctagc ctccccatc
1500
atccaccogg tgattttctg gtcccaggga aagaaagaga gagctgatgc aggtttctac
1560
agtgaggaac aggcgtttcc caggccccac acccagattt ctctatcttt gctgtgtttt
1620
atggcctggg actgagtcca cacgtaga ttttctctg taacctgag acgagaattc
1680

caaggagtgt caccatcaga ggcttctctt catttgttca aagaagcccc tagctgctct
 1740
 cgtggcctcc tccccccact cctatccct tcacctgtga aatgccttg ctttgcatat
 1800
 tgtgtgtgga tgtgtgtgtg tgtgtgtgtg tgtgtgtgtg tatgtgtgtg cttctgtgtg
 1860
 tgcctaagtc tctgtctctt ggctcaatgaa gcatacaaat aaagaatttc cctcatgggc
 1920
 cagactaaaa aaaaaaaaaa
 1940

<210> 5826

<211> 88

<212> PRT

<213> Homo sapiens

<400> 5826

Val	His	Thr	Asp	Arg	Phe	Phe	Leu	Val	Thr	Leu	Arg	Arg	Glu	Phe	Gln
1				5					10				15		
Gly	Val	Ser	Pro	Ser	Glu	Ala	Ser	Leu	His	Cys	Val	Lys	Glu	Ala	Pro
			20					25					30		
Ser	Cys	Ser	Arg	Gly	Leu	Leu	Pro	Leu	Pro	Ile	Pro	Ser	Pro	Val	
			35				40				45				
Lys	Cys	Leu	Cys	Phe	Ala	Tyr	Cys	Val	Trp	Met	Cys	Val	Cys	Val	Cys
			50			55				60					
Val	Cys	Val	Cys	Val	Cys	Val	Cys	Phe	Cys	Val	Cys	Leu	Met	Leu	Cys
65				70					75					80	
Leu	Leu	Val	Thr	Glu	Ala	Ser	Lys								
							85								

<210> 5827

<211> 428

<212> DNA

<213> Homo sapiens

<400> 5827

ttttaggcaa cacttcgtat gttttaagag ctaaaagcaac taagaacaca gtactgtgac
 60
 ccacactaag gaatccaggg aagagaagca ttgccttagg ggtcacagca agccagagag
 120
 tccagattaa aagctccagc ttgggggcct gtttcaaatg accaggtagg ttcagccacc
 180
 ccttggagac togaatagga agaatactga gataacaatc ttgggagaga gatgagaaaa
 240
 aagcccagct ttataaagag ggggcgttcc cagttactta atctatgcct ggcccagaaa
 300
 aggtgaaaac atgaggtggg ggacatgaaa attgttaaat aaagtgaact gtgcagtaag
 360
 aatgagttgg gcgaggtgca ccagcagagg ggaggcaggt aggaaggagg aggcagtagt
 420
 aggggggag
 428

<210> 5828

<211> 106
 <212> PRT
 <213> Homo sapiens

<400> 5828
 Met Pro Pro Pro Ser Tyr Leu Pro Pro Leu Cys Trp Cys Thr Ser Pro
 1 5 10 15
 Asn Ser Phe Leu Leu His Ser Ser Leu Tyr Leu Thr Ile Phe Met Ser
 20 25 30
 Pro Thr Ser Cys Phe His Leu Phe Trp Ala Arg His Arg Leu Ser Asn
 35 40 45
 Trp Glu Arg Pro Leu Phe Ile Lys Leu Gly Phe Phe Leu Ile Ser Leu
 50 55 60
 Pro Asn Val Val Ser Gln Tyr Ser Ser Tyr Ser Ser Leu Gln Gly Val
 65 70 75 80
 Ala Glu Pro Thr Trp Ser Phe Glu Thr Gly Pro Gln Ala Gly Ala Phe
 85 90 95
 Asn Leu Asp Ser Leu Ala Cys Cys Asp Pro
 100 105

<210> 5829
 <211> 5747
 <212> DNA
 <213> Homo sapiens

<400> 5829
 nnggcacgag cggaggagga cgcagagcccc ttgcgggcgg tcatcacaga ccagcctcgg
 60
 ggctgccaca gcgcgttgcc cctgtgcgcc ctgggtcccc gcgtccactg agcgcgcgcg
 120
 tcgggggatgg ggcgcggcgg gcgggcccc gcgccctggc ctgtccactg gctgcgctgc
 180
 gtccctgtcc tcgggtgcct gcacctcggc cgtcccgccg cccctgggga cgccgccctc
 240
 ccggaaccca acgtctctct catcttcagc catggactgc agggctgcct ggaggccagg
 300
 gcggggcagg tcagagtcac ccgggcttgc aataccagcc tccctgccca gcgctggaag
 360
 tgggtctctcc gaaacgggct attcaacctg ggtaccatgc agtgccctggg cacaggctgg
 420
 ccaggcacca acaccaaggc ctccctgggc atgtatgagt gtgaccggga agcactgaat
 480
 ctccgctggc attgtcgtac actgggtgac cagctgtcct tgcctcctggg ggccgcacc
 540
 agcaacatat ccaagcctgg cacccttgag cgtggtgacc agaccgcag tggccagctg
 600
 cgcattctacg gcagcgagga ggacctatgt gctctgccct accacgaggt ctacaccatc
 660
 caggggaaact cccagcgaaa gccgtgcacc atccccctca aatatgacaa ccagtggttc
 720
 cagcgctgca ccagcacggg ccgcgaggat ggtcacctgt ggtgtgccac caccaggac
 780
 tacggcaaaag acgagcgcgt gggcttctgc cccatcaaga gtaacgactg cgagaccttc
 840

tgggacaagg accagctgac tgacagctgc taccagttta acttccagtc caogctgtcg
900
tggaggggagg cctggggccag ctgagagcag cagggtgcgg atctgctgag catcaccgag
960
atccacgagc agacctacat caacggcctc ctcaactgggt acagctccac cctgtggatc
1020
ggcttgaatg acttggacac gagcgaggcg tggcagtggt cggaacaact gccccctaag
1080
tacctcaact gggagagtga ccagccggac aacccagtg aggagaactg tggagtgtac
1140
cgcaactgagt cctcggggcgg ctggcagaac cgtgactgca gcatacgcgct gcctatgtg
1200
tgcaagaaga agcccaacgc cagggccgag cccacccctc cagacaggtg ggccaatgtg
1260
aaggtggagt gcgagccgag ctggcagccc ttccagggcc actgctaccg cctgcaggcc
1320
gagaagcgca gctggcgagga gtccaagaag gcatagtctac gggcggttg cgacctggtc
1380
agcatccaca gcataggcga gctggaattc atcaccaagc agatcaagca agaggtggag
1440
gagctgtgga tcggcctcaa cgatttgaaa ctgcagatga attttgagt gtctgacggg
1500
agccttgtga gcttcaccca ctggcaccoc tttagagcca acaactccg ggacagtctg
1560
gaggactgtg tcaccatctg gggcccgga ggcgctgga acgacagtcc ctgtaaccag
1620
tccttgccat ccatctgcaa gaaggcagcg cagctgagcc agggggcgcg cgaggaggac
1680
catggctgcc ggaagggtg gacgtggcac agcccctct gctactggct gggagaagac
1740
caagtgcact acagtggagc cggcgccctg tgcactgacc atggctctca gctggtcacc
1800
atcaccaaca ggttcgagca ggccttcgtc agcagcctca tctacaactg ggaggggcag
1860
tacttctgga cggccctgca ggacctcaac agcaccggct ccttctctg gctcagtggg
1920
gatgaagtca tgtacacca ctggaaccgg gaccagcccg ggtacagccg tgggggctgc
1980
gtggcgctgg ccactggcag gcgcatgggg ctgtgggagg tgaagaactg tacctcgttc
2040
cgggcccgct acatctgccc gcagagcctg ggcaactcag tgacgccgga gctgcggggg
2100
ccagatccca cgcccagcct cactggctcc tgtcccgagg gctgggcctc ggacacccaa
2160
ctccggtatt gctataaggt gttcagctca gagcggctgc aggaacaaga gagctgggtc
2220
caggcccagg gggcctgcca ggagctgggg gccagctgc tgagcctggc cagctacgag
2280
gaggagcact ttgtggccaa catgctcaac aagatcttcg gtgaatcaga acccgagatc
2340
cacgagcagc actggttctg gatcggcctg aacgctcggg atcccagagg gggtcagagt
2400
tgccgctgga gcgacggcgt agggttctct taccacaatt tcgaccggag ccggcacgac
2460

gacgacgaca tccgaggtcg tgcggtgctg gacctggcct cccgtcagtg ggtggccatg
2520
cagtgcgaca cacagctgga ctggatctgc aagatcccca gaggtacgga cgtgcgggag
2560
cccgcagaca gccctcaagg ccgacgggaa tggctgcgct tccaggaggc cgagtacaaag
2640
ttcttttgagc accactccac gtgggscgag gcgcagcgca tctgcactg gtccaggcc
2700
gagctgacct ccgtgcacag ccaggcggag ctgacttcc tgagccacaa cttgcagaag
2760
ttctccggg cccaggagca gcaactgttg atcggcctgc acacctctga gagcgatggg
2820
cgcttcagat ggacagatgg ttccattata aacttcactc cctgggcacc agggcaacct
2880
cgccctgtcg gcaaggacaa gaagtgcgtg tacatgacag ccagccgaga ggactggggg
2940
gaccagaggt gcctgacagc cttgccctac atctgcaagc gcagcaacct caccaaagaa
3000
acgcagcccc cagacctgcc aactacagcc ctggggggct gccctctga ctggatccag
3060
ttctctcaaa agtgttttca ggtccagggc caggaaacccc agagccgggt gaagtgttca
3120
gaggcacagt tctcctgtga acagcaagag gccacgttg tccatctcac aaaccctta
3180
gagcaagcat tcatcacagc cagcctgcc aatgtgacct ttgacctttg gattggcctc
3240
catgccctgc agagggaact ccagtggtg gagcaggagc ctttgatgta tgccaactgg
3300
gcacctgggg agccctctgg cctagccct gctcccagtg gcaacaaacc gaccagctgt
3360
gcggtgttcc tgcacagccc ctcagccac ttactggcc gctgggacga tcggagctgc
3420
acggaggaga cccatggctt catctgccag aaggggcagc accctccct gagcccgctc
3480
ccagcagcgc tgccccccgc cccgggcact gagctctct acctcaacgg caccttccgg
3540
ctgcttcaga agccgctgcg ctggcacgat gccctcctgc tgtgtgagag ccacaatgcc
3600
agccctggcct acgtgcccga cccctacacc caggccctcc tcacgcaggc tgcccagggg
3660
ctgcgcacgc cgctctggat tgggctggct ggcgaggagg gctctcggcg gtactcctgg
3720
gtctcagagg agccgctgaa ctacgtgggc tggcaggagc gggagccgca gcagccgggg
3780
ggctgtacct acgtagatgt ggacggggcc tggcgaccca ccagctgtga caccagctg
3840
cagggggctg tgtgtggggg tagcagtggg cccctccctc ccggaagaat aagctacct
3900
ggcagctgtc cccagggact ggcagactcc gctgtgattc ctttccggga gcaactgctat
3960
ttttccaca tggagctgct gctggggccac aaggaggcgc gacagcgctg ccagagagcg
4020
ggtggggcgg tectgtctat cctggatgag atggagaatg tgtttgtctg ggagcacctg
4080

cagagctatg agggccagag tcggggcgcc tggctgggca tgaacttcaa ccccaaagga
4140
ggcactcttg tctggcagga caacacagct gtgaactact ccaactgggg gccccgggc
4200
ttgggcccc gcatgctgag ccaacaacagc tgctactgga ttcagagcaa cagcgggcta
4260
tggcgcccc gcgcttgac caacatcacc atgggtgtcg tctgcaagct tcctcgtgct
4320
gagcagagca gcttctcccc atcagcgctt ccagagaacc cagcggccct ggtggtggtg
4380
ctgatggcgg tgctgctgct cctggccttg ctgaccgcag ccctcatcct ttaccggagg
4440
cgccagagca tcgagcgcg ggcccttgag ggtgcccgct acagccgcag cagctccagc
4500
cccaccgagg ccactgagaa gaacatcctg gtgtcagaca tggaaatgaa tgagcagcaa
4560
gaatagagcc aggcgcgtgg gcagggccag ggcgggagga gctggggagc tggggccctg
4620
ggtcagctg gccccccacc agctgcctgt ccagttggcc tattgaaggg tgcccttggg
4680
agtcgctggt gggagcggga gctgggcaga gcctgggctg gtggggtgcc accctccac
4740
aagggtctgg ctgagacca gcaagagca gcgtggcggt tccctttctg ggggggcctg
4800
aggctctgtc acctggtcct gtgccccac aggaaccaga ggtaggatgg gagggggaac
4860
gagagcctct ttctccccc agcccccgcc ccaggcctgt tgatccgcgc ccaggagccc
4920
ccttctttgc agagcccgag gagcctcccc tgtccctcg ggcagatctg ttgtgtctct
4980
cttcccacct ggcagcctca gctctgtgcc cctcaccctg ctccctctcg ccccttctct
5040
cccacccctt ccttctgagc cgggccctgg ggattgggga gccctcttgt tctgatgag
5100
ggtcagctga gggggctgag catccatcac tcctgtgcct gctggggtgg ctgtggggcg
5160
tggcaggagg ggcctagggt ggttgggcct gagaaccagg gcacgggtgt ggtgtctgct
5220
gggctggaga taagactggg gagagacacc ccaacctccc aggggtgggag ctggggcggg
5280
ctgggatgac atctcctgcc gggcggggga gggctctgac cctggaagag tcccctgtgg
5340
ggaccaaagt aagtcccta acatctccag ctcttggtgc tggtttgag caaggggaag
5400
ggttgccaga gtcctggggg cccagagga gcaggagtct gggagggccc agagtccacc
5460
ctctagtggg tccaggagga gcagcaccgc agccctggag tggccagta cccctccaag
5520
aggccacagt cccagccagg acaagatag cggcccatcc tggtcgcaca gcgtgggaca
5580
atgtgaacat ggactcgaag acatggccct ttctctgtag ttgatttttt aaatgtgcca
5640
ttattgtttt taataaaaaa ggaaaaaaga aaagcaaaaca aataaaaacac ctttaagagg
5700

cttgaagaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaa
5747

<210> 5830

<211> 1479

<212> PRT

<213> Homo sapiens

<400> 5830

```
Met Gly Pro Gly Arg Pro Ala Pro Trp Pro Arg His Leu Leu
 1           5           10           15
Arg Cys Val Leu Leu Gly Cys Leu His Leu Gly Arg Pro Gly Ala
 20           25           30
Pro Gly Asp Ala Ala Leu Pro Glu Pro Asn Val Phe Leu Ile Phe Ser
 35           40           45
His Gly Leu Gln Gly Cys Leu Glu Ala Gln Gly Gly Gln Val Arg Val
 50           55           60
Thr Pro Ala Cys Asn Thr Ser Leu Pro Ala Gln Arg Trp Lys Trp Val
 65           70           75           80
Ser Arg Asn Arg Leu Phe Asn Leu Gly Thr Met Gln Cys Leu Gly Thr
 85           90           95
Gly Trp Pro Gly Thr Asn Thr Thr Ala Ser Leu Gly Met Tyr Glu Cys
100           105           110
Asp Arg Glu Ala Leu Asn Leu Arg Trp His Cys Arg Thr Leu Gly Asp
115           120           125
Gln Leu Ser Leu Leu Leu Gly Ala Arg Thr Ser Asn Ile Ser Lys Pro
130           135           140
Gly Thr Leu Glu Arg Gly Asp Gln Thr Arg Ser Gly Gln Trp Arg Ile
145           150           155           160
Tyr Gly Ser Glu Glu Asp Leu Cys Ala Leu Pro Tyr His Glu Val Tyr
165           170           175
Thr Ile Gln Gly Asn Ser His Gly Lys Pro Cys Thr Ile Pro Phe Lys
180           185           190
Tyr Asp Asn Gln Trp Phe His Gly Cys Thr Ser Thr Gly Arg Glu Asp
195           200           205
Gly His Leu Trp Cys Ala Thr Thr Gln Asp Tyr Gly Lys Asp Glu Arg
210           215           220
Trp Gly Phe Cys Pro Ile Lys Ser Asn Asp Cys Glu Thr Phe Trp Asp
225           230           235           240
Lys Asp Gln Leu Thr Asp Ser Cys Tyr Gln Phe Asn Phe Gln Ser Thr
245           250           255
Leu Ser Trp Arg Glu Ala Trp Ala Ser Cys Glu Gln Gln Gly Ala Asp
260           265           270
Leu Leu Ser Ile Thr Glu Ile His Glu Gln Thr Tyr Ile Asn Gly Leu
275           280           285
Leu Thr Gly Tyr Ser Ser Thr Leu Trp Ile Gly Leu Asn Asp Leu Asp
290           295           300
Thr Ser Gly Gly Trp Gln Trp Ser Asp Asn Ser Pro Leu Lys Tyr Leu
305           310           315           320
Asn Trp Glu Ser Asp Gln Pro Asp Asn Pro Ser Glu Glu Asn Cys Gly
325           330           335
Val Ile Arg Thr Glu Ser Ser Gly Gly Trp Gln Asn Arg Asp Cys Ser
340           345           350
Ile Ala Leu Pro Tyr Val Cys Lys Lys Lys Pro Asn Ala Thr Ala Glu
```

355 360 365
 Pro Thr Pro Pro Asp Arg Trp Ala Asn Val Lys Val Glu Cys Glu Pro
 370 375 380
 Ser Trp Gln Pro Phe Gln Gly His Cys Tyr Arg Leu Gln Ala Glu Lys
 385 390 395 400
 Arg Ser Trp Gln Glu Ser Lys Lys Ala Cys Leu Arg Gly Gly Gly Asp
 405 410 415
 Leu Val Ser Ile His Ser Met Ala Glu Leu Glu Phe Ile Thr Lys Gln
 420 425 430
 Ile Lys Gln Glu Val Glu Glu Leu Trp Ile Gly Leu Asn Asp Leu Lys
 435 440 445
 Leu Gln Met Asn Phe Glu Trp Ser Asp Gly Ser Leu Val Ser Phe Thr
 450 455 460
 His Trp His Pro Phe Glu Pro Asn Asn Phe Arg Asp Ser Leu Glu Asp
 465 470 475 480
 Cys Val Thr Ile Trp Gly Pro Glu Gly Arg Trp Asn Asp Ser Pro Cys
 485 490 495
 Asn Gln Ser Leu Pro Ser Ile Cys Lys Lys Ala Gly Gln Leu Ser Gln
 500 505 510
 Gly Ala Ala Glu Glu Asp His Gly Cys Arg Lys Gly Trp Thr Trp His
 515 520 525
 Ser Pro Ser Cys Tyr Trp Leu Gly Glu Asp Gln Val Thr Tyr Ser Glu
 530 535 540
 Ala Arg Arg Leu Cys Thr Asp His Gly Ser Gln Leu Val Thr Ile Thr
 545 550 555 560
 Asn Arg Phe Glu Gln Ala Phe Val Ser Ser Leu Ile Tyr Asn Trp Glu
 565 570 575
 Gly Glu Tyr Phe Trp Thr Ala Leu Gln Asp Leu Asn Ser Thr Gly Ser
 580 585 590
 Phe Phe Trp Leu Ser Gly Asp Glu Val Met Tyr Thr His Trp Asn Arg
 595 600 605
 Asp Gln Pro Gly Tyr Ser Arg Gly Gly Cys Val Ala Leu Ala Thr Gly
 610 615 620
 Ser Ala Met Gly Leu Trp Glu Val Lys Asn Cys Thr Ser Phe Arg Ala
 625 630 635 640
 Arg Tyr Ile Cys Arg Gln Ser Leu Gly Thr Pro Val Thr Pro Glu Leu
 645 650 655
 Pro Gly Pro Asp Pro Thr Pro Ser Leu Thr Gly Ser Cys Pro Gln Gly
 660 665 670
 Trp Ala Ser Asp Thr Lys Leu Arg Tyr Cys Tyr Lys Val Phe Ser Ser
 675 680 685
 Glu Arg Leu Gln Asp Lys Lys Ser Trp Val Gln Ala Gln Gly Ala Cys
 690 695 700
 Gln Glu Leu Gly Ala Gln Leu Leu Ser Leu Ala Ser Tyr Glu Glu Glu
 705 710 715 720
 His Phe Val Ala Asn Met Leu Asn Lys Ile Phe Gly Glu Ser Glu Pro
 725 730 735
 Glu Ile His Glu Gln His Trp Phe Trp Ile Gly Leu Asn Arg Arg Asp
 740 745 750
 Pro Arg Gly Gly Gln Ser Trp Arg Trp Ser Asp Gly Val Gly Phe Ser
 755 760 765
 Tyr His Asn Phe Asp Arg Ser Arg His Asp Asp Asp Ile Arg Gly
 770 775 780
 Cys Ala Val Leu Asp Leu Ala Ser Leu Gln Trp Val Ala Met Gln Cys

785					790				795					800	
Asp	Thr	Gln	Leu	Asp	Trp	Ile	Cys	Lys	Ile	Pro	Arg	Gly	Thr	Asp	Val
				805					810					815	
Arg	Glu	Pro	Asp	Asp	Ser	Pro	Gln	Gly	Arg	Arg	Glu	Trp	Leu	Arg	Phe
			820					825					830		
Gln	Glu	Ala	Glu	Tyr	Lys	Phe	Phe	Glu	His	His	Ser	Thr	Trp	Ala	Gln
			835				840					845			
Ala	Gln	Arg	Ile	Cys	Thr	Trp	Phe	Gln	Ala	Glu	Leu	Thr	Ser	Val	His
			850				855					860			
Ser	Gln	Ala	Glu	Leu	Asp	Phe	Leu	Ser	His	Asn	Leu	Gln	Lys	Phe	Ser
				870						875				880	
Arg	Ala	Gln	Glu	Gln	His	Trp	Trp	Ile	Gly	Leu	His	Thr	Ser	Glu	Ser
				885					890					895	
Asp	Gly	Arg	Phe	Arg	Trp	Thr	Asp	Gly	Ser	Ile	Ile	Asn	Phe	Ile	Ser
			900					905					910		
Trp	Ala	Pro	Gly	Lys	Pro	Arg	Pro	Val	Gly	Lys	Asp	Lys	Lys	Cys	Val
			915				920					925			
Tyr	Met	Thr	Ala	Ser	Arg	Glu	Asp	Trp	Gly	Asp	Gln	Arg	Cys	Leu	Thr
			930				935					940			
Ala	Leu	Pro	Tyr	Ile	Cys	Lys	Arg	Ser	Asn	Val	Thr	Lys	Glu	Thr	Gln
					950					955				960	
Pro	Pro	Asp	Leu	Pro	Thr	Thr	Ala	Leu	Gly	Gly	Cys	Pro	Ser	Asp	Trp
				965					970					975	
Ile	Gln	Phe	Leu	Asn	Lys	Cys	Phe	Gln	Val	Gln	Gly	Gln	Glu	Pro	Gln
			980					985					990		
Ser	Arg	Val	Lys	Trp	Ser	Glu	Ala	Gln	Phe	Ser	Cys	Glu	Gln	Glu	Glu
			995				1000					1005			
Ala	Gln	Leu	Val	Thr	Ile	Thr	Asn	Pro	Leu	Glu	Gln	Ala	Phe	Ile	Thr
							1015					1020			
Ala	Ser	Leu	Pro	Asn	Val	Thr	Phe	Asp	Leu	Trp	Ile	Gly	Leu	His	Ala
					1030					1035				1040	
Ser	Gln	Arg	Asp	Phe	Gln	Trp	Val	Glu	Gln	Glu	Pro	Leu	Met	Tyr	Ala
				1045					1050					1055	
Asn	Trp	Ala	Pro	Gly	Glu	Pro	Ser	Gly	Pro	Ser	Pro	Ala	Pro	Ser	Gly
				1060				1065					1070		
Asn	Lys	Pro	Thr	Ser	Cys	Ala	Val	Val	Leu	His	Ser	Pro	Ser	Ala	His
				1075				1080					1085		
Phe	Thr	Gly	Arg	Trp	Asp	Asp	Arg	Ser	Cys	Thr	Glu	Glu	Thr	His	Gly
							1095					1100			
Phe	Ile	Cys	Gln	Lys	Gly	Thr	Asp	Pro	Ser	Leu	Ser	Pro	Ser	Pro	Ala
					1110					1115				1120	
Ala	Leu	Pro	Pro	Ala	Pro	Gly	Thr	Glu	Leu	Ser	Tyr	Leu	Asn	Gly	Thr
					1125				1130					1135	
Phe	Arg	Leu	Leu	Gln	Lys	Pro	Leu	Arg	Trp	His	Asp	Ala			

1220 1225 1230
 Ser Cys Asp Thr Lys Leu Gln Gly Ala Val Cys Gly Val Ser Ser Gly
 1235 1240 1245
 Pro Pro Pro Pro Arg Arg Ile Ser Tyr His Gly Ser Cys Pro Gln Gly
 1250 1255 1260
 Leu Ala Asp Ser Ala Trp Ile Pro Phe Arg Glu His Cys Tyr Ser Phe
 1265 1270 1275 1280
 His Met Glu Leu Leu Gly His Lys Glu Ala Arg Gln Arg Cys Gln
 1285 1290 1295
 Arg Ala Gly Gly Ala Val Leu Ser Ile Leu Asp Glu Met Glu Asn Val
 1300 1305 1310
 Phe Val Trp Glu His Leu Gln Ser Tyr Glu Gly Gln Ser Arg Gly Ala
 1315 1320 1325
 Trp Leu Gly Met Asn Phe Asn Pro Lys Gly Gly Thr Leu Val Trp Gln
 1330 1335 1340
 Asp Asn Thr Ala Val Asn Tyr Ser Asn Trp Gly Pro Pro Gly Leu Gly
 1345 1350 1355 1360
 Pro Ser Met Leu Ser His Asn Ser Cys Tyr Trp Ile Gln Ser Asn Ser
 1365 1370 1375
 Gly Leu Trp Arg Pro Gly Ala Cys Thr Asn Ile Thr Met Gly Val Val
 1380 1385 1390
 Cys Lys Leu Pro Arg Ala Glu Gln Ser Ser Phe Ser Pro Ser Ala Leu
 1395 1400 1405
 Pro Glu Asn Pro Ala Ala Leu Val Val Val Leu Met Ala Val Leu Leu
 1410 1415 1420
 Leu Leu Ala Leu Leu Thr Ala Ala Leu Ile Leu Tyr Arg Arg Gln
 1425 1430 1435 1440
 Ser Ile Glu Arg Gly Ala Phe Glu Gly Ala Arg Tyr Ser Arg Ser Ser
 1445 1450 1455
 Ser Ser Pro Thr Glu Ala Thr Glu Lys Asn Ile Leu Val Ser Asp Met
 1460 1465 1470
 Glu Met Asn Glu Gln Gln Glu
 1475

<210> 5831
 <211> 2216
 <212> DNA
 <213> Homo sapiens

<400> 5831
 nntcccggtt tattcatctt tggttcgatc ttctcgatct tacaagttcg taggtttgag
 60
 aaagaacagg aaaaggtgtc ttctcacaaa taacatgtgc tggagatgac aactatttga
 120
 actcttaagt tctcagcact atgttatgca cttgacgggc attactttaa tcttccactg
 180
 tgagatactt gttattgcct cattttgtag acgagaaaaa gggcatagag ggtgagacat
 240
 tggcccgagt tcattccgta aggggttgag cctggaattc agatacagga ggaagttaac
 300
 atccctaata ggaggggttct ggttactggt gccactgggc ttcttggcag agctgtacac
 360
 aaagaatttc agcagaataa ttggcatgca gttggctgtg gtttcagaag agcaagacca
 420

aaatttgaac aggtttaatct gttggattct aatgcagttc atcacatcat tcatgtattt
480
cagcccccag ttatagtaca ttgtgcagca gagagaagac cagatgttgt agaaaatcag
540
ccagatgctg cctctcaact taatgtggat gttcttggga atttagcaaa ggaagcagct
600
gctgttggag cattttctcat ctacattagc tcagattatg tatttgatgg aacaaatcca
660
ccttacagag aggaagacat accagctccc ctaaatttgt atggcaaaa aaaattagat
720
ggagaaaagg ctgtcctgga gaacaatcta ggagctgctg ttttgaggat tcctattctg
780
tatggggaag ttgaaaagct cgaagaaagt gctgtgactg ttatgtttga taaagtgcag
840
ttcagcaaca agtcagcaaa catggatcac tggcagcaga ggttccccac acatgtcaaa
900
gatgtggcca ctgtgtgccc gcagctagca gagaagagaa tgctggatcc atcaattaa
960
ggaacctttc actggtctgg caatgaacag atgactaagt atgaaatggc atgtgcaatt
1020
gcagatgctt tcaacctccc cagcagtcac ttaagacctt ttactgacag cctgtctcta
1080
ggagcacaca gtccgagaaa tgctcagctt gactgctcca aattggagac cttgggcatt
1140
ggccaacgaa caccatttgc aattggaatc aaagaatcac ttggccttt cctcattgac
1200
aagagatgga gacaaacggt ctttcattag ttattttgtg ttgggttctt ttttttttt
1260
aaatgaaaaa tatagtatgt ggcacttttt aaagaacaaa ggaatatggt ttgtatgagt
1320
acttttaattg tgactcttag gatctttcag gtaaatgatg ctcttgcaact agtgaaattg
1380
tctaaagaaa ctaaagggca gtcatgcctt gtttgacgta atttttcttt ttatcatttt
1440
gtttgtctg gctaaacttg gagtttgagt atagtaaatt atgatcctta aatatttgag
1500
agtcaggatg aagcagatct gctgtagact tttcagatga aattgttcac tctcgtaacc
1560
tccatatttt caggattttt gaagctgttg accttttcat gttgattatt ttaaaattg
1620
tgaaaatagta taaaatcat tgggtgttcat tatttgcctt gctgagctc agatcaaaat
1680
gtttgaagaa aggaacttta tttttgcaag ttacgtacag tttttatgct tgagatat
1740
caacatgtta tgtatatttg aacttctaca gcttgatgcc tctgtgttt atagcagttt
1800
atggggagca cttgaaagag cgtgtgtaca tgtatttttt ttctaggcaa acattgta
1860
caaacgtgta ttttttaaat ataaatatat aactgtcctt ttcacccat gttgcgcgta
1920
agtgatattt catatgtgtg gttatactca taataatggg ctttgtaagt cttttcacca
1980
ttcatgaata ataataaata tgtactgctg gcattgtaat cttagttttc ttgtatttac
2040

ttcttttttt aaatgtaagg accaaacttc taaactaatt gttcttttgt tgctttaatt
 2100
 ttttaaaatt acatttttct gatgtaacat gtgatacata caaaagaata tagtttaata
 2160
 tgatttgaaa taaaacacaa taaaattaac acttgaaaaa aaaaaaaaaa aaaaaa
 2216

<210> 5832

<211> 322

<212> PRT

<213> Homo sapiens

<400> 5832

Gly Leu Glu Pro Gly Ile Gln Ile Gln Glu Glu Val Asn Ile Pro Asn
 1 5 10 15
 Arg Arg Val Leu Val Thr Gly Ala Thr Gly Leu Leu Gly Arg Ala Val
 20 25 30
 His Lys Glu Phe Gln Gln Asn Asn Trp His Ala Val Gly Cys Gly Phe
 35 40 45
 Arg Arg Ala Arg Pro Lys Phe Glu Gln Val Asn Leu Leu Asp Ser Asn
 50 55 60
 Ala Val His His Ile Ile His Asp Phe Gln Pro His Val Ile Val His
 65 70 75 80
 Cys Ala Ala Glu Arg Arg Pro Asp Val Val Glu Asn Gln Pro Asp Ala
 85 90 95
 Ala Ser Gln Leu Asn Val Asp Ala Ser Gly Asn Leu Ala Lys Glu Ala
 100 105 110
 Ala Ala Val Gly Ala Phe Leu Ile Tyr Ile Ser Ser Asp Tyr Val Phe
 115 120 125
 Asp Gly Thr Asn Pro Pro Tyr Arg Glu Glu Asp Ile Pro Ala Pro Leu
 130 135 140
 Asn Leu Tyr Gly Lys Thr Lys Leu Asp Gly Glu Lys Ala Val Leu Glu
 145 150 155 160
 Asn Asn Leu Gly Ala Ala Val Leu Arg Ile Pro Ile Leu Tyr Gly Glu
 165 170 175
 Val Glu Lys Leu Glu Glu Ser Ala Val Thr Val Met Phe Asp Lys Val
 180 185 190
 Gln Phe Ser Asn Lys Ser Ala Asn Met Asp His Trp Gln Gln Arg Phe
 195 200 205
 Pro Thr His Val Lys Asp Val Ala Thr Val Cys Arg Gln Leu Ala Glu
 210 215 220
 Lys Arg Met Leu Asp Pro Ser Ile Lys Gly Thr Phe His Trp Ser Gly
 225 230 235 240
 Asn Glu Gln Met Thr Lys Tyr Glu Met Ala Cys Ala Ile Ala Asp Ala
 245 250 255
 Phe Asn Leu Pro Ser Ser His Leu Arg Pro Ile Thr Asp Ser Pro Val
 260 265 270
 Leu Gly Ala Gln Arg Pro Arg Asn Ala Gln Leu Asp Cys Ser Lys Leu
 275 280 285
 Glu Thr Leu Gly Ile Gly Gln Arg Thr Pro Phe Arg Ile Gly Ile Lys
 290 295 300
 Glu Ser Leu Trp Pro Phe Leu Ile Asp Lys Arg Trp Arg Gln Thr Val
 305 310 315 320
 Phe His

<210> 5833

<211> 805

<212> DNA

<213> Homo sapiens

<400> 5833

aagcttgacag cagcacaggg acaggcaccc ttggagccca cccaagatgg gagtgccatt
 60
 gaaacatgtc caaaaggaga cgagccaaga ggtgacgagc aacagggtga aagtatgacc
 120
 cctaaacctg tgctccagga agaaaaacaac caagagtctt ttattgcatt tgctcgggtg
 180
 ttcagtggtg tggctcgaag aggaaagaaa atttttgtct tggggcccaa atacagtcct
 240
 cttgagtttt tacgaagggt accattaggc ttctcagctc caccagatgg cctcccccaa
 300
 gtccccca tggcatactg tgctctggaa aacctgtatc ttctgatggg aagggaaactg
 360
 gaatatctag aggaggtacc tccaggaaat gtgctaggaa taggaggcct tcaagatttt
 420
 gtgctgaaat ctgcaacact gtgtagcctg ccactcctgc caccatttat accactcaac
 480
 ttcgaagcca ctctattgt gagagttgct gttgaaccaa aacatccaa tgaaatgcct
 540
 cagctcgtaa aggaatgaa actgttaaac caggctgac cctgtgtcca gattttaatt
 600
 caggaaacgg gagagcacgt ttagtcaca gcaggagaag tccacctta gcgatgcctg
 660
 gatgacttaa aagaaggtt tgcaaagatt catatcagtg tatctgaacc tattattcca
 720
 ttcagagaaa caatcacaaa acccccaaaa gttgacatgg tcaatgaaga aataggcaaa
 780
 cagcaaaaag ttgcagtcac acacc
 805

<210> 5834

<211> 268

<212> PRT

<213> Homo sapiens

<400> 5834

Lys Leu Ala Ala Ala Gln Gly Gln Ala Pro Leu Glu Pro Thr Gln Asp
 1 5 10 15
 Gly Ser Ala Ile Glu Thr Cys Pro Lys Gly Asp Glu Pro Arg Gly Asp
 20 25 30
 Glu Gln Gln Val Glu Ser Met Thr Pro Lys Pro Val Leu Gln Glu Glu
 35 40 45
 Asn Asn Gln Glu Ser Phe Ile Ala Phe Ala Arg Val Phe Ser Gly Val
 50 55 60
 Ala Arg Arg Gly Lys Lys Ile Phe Val Leu Gly Pro Lys Tyr Ser Pro
 65 70 75 80
 Leu Glu Phe Leu Arg Arg Val Pro Leu Gly Phe Ser Ala Pro Pro Asp

85										90					95				
Gly	Leu	Pro	Gln	Val	Pro	His	Met	Ala	Tyr	Cys	Ala	Leu	Glu	Asn	Leu				
100										105					110				
Tyr	Leu	Leu	Met	Gly	Arg	Glu	Leu	Glu	Tyr	Leu	Glu	Glu	Val	Pro	Pro				
115										120					125				
Gly	Asn	Val	Leu	Gly	Ile	Gly	Gly	Leu	Gln	Asp	Phe	Val	Leu	Lys	Ser				
130										135					140				
Ala	Thr	Leu	Cys	Ser	Leu	Pro	Ser	Cys	Pro	Pro	Phe	Ile	Pro	Leu	Asn				
145										150					155				
Phe	Glu	Ala	Thr	Pro	Ile	Val	Arg	Val	Ala	Val	Glu	Pro	Lys	His	Pro				
165										170					175				
Ser	Glu	Met	Pro	Gln	Leu	Val	Lys	Gly	Met	Lys	Leu	Leu	Asn	Gln	Ala				
180										185					190				
Asp	Pro	Cys	Val	Gln	Ile	Leu	Ile	Gln	Glu	Thr	Gly	Glu	His	Val	Leu				
195										200					205				
Val	Thr	Ala	Gly	Glu	Val	His	Leu	Gln	Arg	Cys	Leu	Asp	Asp	Leu	Lys				
210										215					220				
Glu	Arg	Phe	Ala	Lys	Ile	His	Ile	Ser	Val	Ser	Glu	Pro	Ile	Ile	Pro				
225										230					235				
Phe	Arg	Glu	Thr	Ile	Thr	Lys	Pro	Pro	Lys	Val	Asp	Met	Val	Asn	Glu				
245										250					255				
Glu	Ile	Gly	Lys	Gln	Gln	Lys	Val	Ala	Val	Ile	His								
260										265									

<210> 5835

<211> 420

<212> DNA

<213> Homo sapiens

<400> 5835

ngtgcgtgagc agcgcgtgggg ttctggcctg gaggaagtgt acggcctggc actgcgcttc
 60
 ttcaaaaaaa aagatggcaa agcatttcat ccaacttatg aagaaaaaatt gaagcttgtg
 120
 gcactgcata agcaagtctt tatgggccca tataatccag acacttgtcc tgaggttgga
 180
 tctcttgatg tgttggggaa tgacagaggg agagaatggg cagccctggg aaacatgtct
 240
 aaagaggatg ccatggtgga gtttgtcaag ctcttaata ggtgttgcca tctcttttca
 300
 acatatgttg cgtccacaaa aatagagaag gaagagcaag acaaaaaaag gaaggaggaa
 360
 gaggagcgaa ggcggcgtga agaggaagaa agagaacgtc tgcaaaagga ggaagagaaa
 420

<210> 5836

<211> 140

<212> PRT

<213> Homo sapiens

<400> 5836

Xaa Leu Glu Gln Arg Trp Gly Phe Gly Leu Glu Glu Leu Tyr Gly Leu
1 5 10 15
Ala Leu Arg Phe Phe Lys Glu Lys Asp Gly Lys Ala Phe His Pro Thr

```

                20                25                30
Tyr Glu Glu Lys Leu Lys Leu Val Ala Leu His Lys Gln Val Leu Met
      35                40                45
Gly Pro Tyr Asn Pro Asp Thr Cys Pro Glu Val Gly Phe Phe Asp Val
      50                55                60
Leu Gly Asn Asp Arg Arg Arg Glu Trp Ala Ala Leu Gly Asn Met Ser
65      70                75                80
Lys Glu Asp Ala Met Val Glu Phe Val Lys Leu Asn Arg Cys Cys
      85                90                95
His Leu Phe Ser Thr Tyr Val Ala Ser His Lys Ile Glu Lys Glu Glu
      100                105                110
Gln Asp Lys Lys Arg Lys Glu Glu Glu Glu Arg Arg Arg Glu Glu
      115                120                125
Glu Glu Arg Glu Arg Leu Gln Lys Glu Glu Glu Lys
      130                135                140

```

<210> 5837

<211> 582

<212> DNA

<213> Homo sapiens

<400> 5837

```

nnccgtcttt caccatttct accccacgac cacctcggct tggtgtcttt ctccatgctg
60      tggtgttttt ggcccggttg catcgtgcgc ttctgtctag ccagagaagc caacaaggct
120      tgggcccaagg gggacatcca gggggcaggg gccgectccc gccgtgcctt cctgtggggg
180      gtcctcgccg tggggctggg cgtgtgcacg tatcgggctg cctcggtgac cctggccgcc
240      taccttgccct ccgagagccc gccctagtgt ccctacagc cctcactgtg aacctgagg
300      ccggcagccc agcaaatctg tgggcagaga gtggagaatc ttggtggatg aggcgtgcggc
360      ggcggcagga gcatctagaa acgggagcga gctggactgg aacctctccc ctctctggcc
420      accgctcttc gggcggcagc aacctgagat taaacaccag acaccttggg cctgggctca
480      cgaggaaggg gctgcagttc tccaaggatt ccgcctgct ccagatccc cgggagtcgt
540      aggaacctgt tcctggacgc tgacgtcggc ttccagggat cc
582

```

<210> 5838

<211> 88

<212> PRT

<213> Homo sapiens

<400> 5838

```

Xaa Arg Leu Ser Pro Phe Leu Pro His Asp His Leu Gly Leu Ala Val
  1                5                10                15
Phe Ser Met Leu Cys Cys Phe Trp Pro Val Gly Ile Ala Ala Phe Cys
      20                25                30
Leu Ala Gln Lys Thr Asn Lys Ala Trp Ala Lys Gly Asp Ile Gln Gly

```

	35		40		45	
Ala	Gly	Ala	Ala	Ser	Arg	Arg
	50		55		60	
Gly	Leu	Gly	Val	Cys	Thr	Tyr
	65		70		75	
Tyr	Leu	Ala	Ser	Arg	Asp	Pro
			85			

<210> 5839

<211> 1895

<212> DNA

<213> Homo sapiens

<400> 5839

```

tttttttttt ttttaacaata aaatagctct ttgtttattc accttgattt ggatcattgg
60
aaatatataa caataataaa aacagagcgg gggctgagga aagcaggatc ttgctgaagt
120
cattcgaatg catccaacc agtgctcagc tgcgtaacga catggagaga ggcagggggg
180
aatagaaagc aaatttataa acaccaacac ccaaacacac aagactgcac acaagaaaaa
240
gtgctcaaga aactttggct ttgaaggga ttcagtgaag ggaagcgatt gtgcaggagg
300
aagggaagaa acccacgac accctaaggg gcggggggct ggagggcgag gccctgagac
360
aggctagggt taaagctgac gtccacagc tcaggacgta caaccgatgg cagttttgta
420
ctaggaagaa gctgagtgat gaggctgggt gatgggatcg cttgacgggc tgggagggag
480
gacaggaggt gttaaagggt ctcaccttcc ctaggaaat tcagtgtctt ttggtaaga
540
aaaaatagtc ggtaatgcc tgatcctgac aagctgtgag atgctgtctt gcctgtctct
600
gccttttctt ctaagtttct ctccttttct ttgcacaggt gtcaggtagc accccagggg
660
tgcaaggagct ggtgttttca tgacaaacaa aaatggggag gttgactcta tctcaaaact
720
agctagccca gtccacaggg caggataatc ctgatggcgt gtaccacat ttgctgcгаа
780
ccagatgtct gcgatggata taatgatacc ccgggggctc ttctcagggg tgaggacagg
840
tgctgtgttc tgatggtgca tggctggtgt ccagtcacct ttgctggggc agtggccctc
900
cgagggtcgg gcttccttgc acaagggtatt ttgatcctt gccagcggag ggagagagag
960
ttatcttggt ttctctttca cttgttttcg ggctgcttca aagcaaacat cccagttcca
1020
aatgttcttt gtggttttga tctctggcaga ggcagggttc acatccaagt gggactggcc
1080
tctagcacca ccttctggcc acagcagaga atgggattcc atcaaacgct ctcaaccagg
1140
cgtttcccta aagaatcacc cagatcttaa ctgccctctc cactttcttt tttttccccc
1200

```


tctatattta cattctattt tctcatatcc agctttttctc tctaagccta accaaatgct
 1260
 ttgggtgaatg atgcttgga aagctggagt tttaaaaggc attcatccat ttatgaactt
 1320
 tcttccagcc caggatccct gcagagaacc agaggttaca aatctgacct cctttctccc
 1380
 ctaaaagggt gctgagggga ggagaggtgc atgtagctcc agctatagca aatcagtgcc
 1440
 ctgactcact ggggagaccc aggggggttg gatgttgctg acacctcatg ggccacctca
 1500
 tcagcccatc ttgttagctt caggttcage tctgggtgct gcaggcaggg acccctctgc
 1560
 tccctgcctg aatgcagggc cagttctcaa ggaactctgt ctgcagagta gaaagagctg
 1620
 tgggctggga atcagggggc tgaggggagcc cctgcactg cctgccacaga accagtgtct
 1680
 ctcatctccc tgctgacagc atgcatgtgc cttttggcta acacacactc ttgtctaatt
 1740
 cccagccacc ttcacccag ggatgagttc cagttgggtt aagccagact ggtgcattta
 1800
 attctggctg caacaactgg attctgttaa gtgcccattg ctaagccaat gagctatctg
 1860
 ctgggctgtg ggaaagagaa atgcagcttc ntata
 1895

<210> 5840

<211> 138

<212> PRT

<213> Homo sapiens

<400> 5840

Met	Ala	Cys	Ser	His	Ile	Cys	Cys	Lys	Pro	Asp	Val	Cys	Asp	Gly	Tyr
1				5					10					15	
Asn	Asp	Thr	Pro	Gly	Ala	Leu	Leu	Arg	Gly	Glu	Asp	Arg	Cys	Trp	Phe
			20					25					30		
Leu	Met	Val	His	Gly	Trp	Cys	Pro	Val	Ile	Phe	Ser	Trp	Ala	Val	Ala
			35				40					45			
Pro	Arg	Gly	Ser	Gly	Phe	Pro	Ala	Gln	Gly	Ile	Phe	Asp	Pro	Cys	Gln
			50			55				60					
Arg	Arg	Glu	Arg	Glu	Leu	Ser	Trp	Phe	Pro	Phe	His	Leu	Phe	Ser	Gly
65					70				75					80	
Cys	Phe	Lys	Ala	Asn	Ile	Pro	Val	Pro	Asn	Val	Leu	Cys	Gly	Leu	Asn
				85					90					95	
Pro	Gly	Arg	Gly	Gln	Gly	His	Ile	Gln	Val	Gly	Leu	Ala	Ser	Ser	Thr
			100				105						110		
Thr	Phe	Trp	Pro	Gln	Gln	Arg	Met	Gly	Phe	His	Gln	Ser	Leu	Ser	Thr
			115			120						125			
Ser	Arg	Phe	Pro	Lys	Glu	Ser	Pro	Arg	Ser						
			130			135									

<210> 5841

<211> 3411

<212> DNA

<213> Homo sapiens

<400> 5841
ngggccttct ggtggacctc cactcccacg cggggcgggg tgcagggtgc gaagtggaaa
60
tggaggcggg agatggaacg cccccacct cctcgcacac tttggggcca tgaaaaccca
120
ttctcggacc ttcccagcgg caccctcaat ttccaccgg tgtggacatc tcgaacttgc
180
tcccggcccac ctttctgtct ctctcaaata gtacagctta aagcaataaa tgtagatctt
240
caaagtgatg ctgctctgca ggtggacatt tctgatgctc ttagtgagcg ggataaagta
300
aaattcactg ttcacacaaa gagttcattg ccaaatttta aacaaaaacga gttttcagtt
360
gttcggcgaac atgaggaatt tatctggctt catgattcct ttgttgaaaa tgaagactat
420
gcagggtata tcattccacc agcaccacca agacctgatt ttgatgcttc aagggaaaaa
480
ctacagaagc ttggtgaagg agaagggtca atgacgaagg aagaattcac aaagatgaaa
540
caggaaactgg aagctgaata tttggcaata ttcaagaaga cagttgcgat gcatgaagtg
600
ttcctgtgtc gtgtggcagc acatcctatt ttgagaagag atttaaat ccatgtcttc
660
ttggaatata atcaagattt gagtgtgcga ggaaaaaata aaaaagagaa acttgaagac
720
ttcttataaa acatggttaa atcagcagat ggagtaatcg ttccaggagt aaaggatgta
780
gatgatttct ttgagcagca acgaacattt cttttggaat atcataaccg agttaagat
840
gcattctgcta aatctgatag aatgacaaga tcccacaaaa gtgctgcaga tgattacaat
900
agaattgggt cttcattata tgcttttaga actcaggatt ctacagatat atgcaagttt
960
tttctcaaag ttccagaact gttcgataaa acaagaaaaa tagaagcacg agtgtctgct
1020
gatgaagacc tcaaaccttc tgatctttta aaatattact taagagaatc tcaagctgct
1080
aaggatctcc tgtatcgaag gtctagggtca ctagtggatt atgaaaatgc taataaagca
1140
ctggataaag caagagcaaa aaataaagat gttctacagg ccgaaacttc ccaacaatta
1200
tgttgtcaga aatttgaaaa aatatctgag tctgcaaaa aagaacttat agattttaag
1260
acaagaagag ttgctgcatt cagaaaaaat ttagtggaac tggcagagtt agaactgaag
1320
catgcaaagg gtaatctaca gttgctgcag aactgcctgg cagtgttaaa tggagacaca
1380
taagccacac tccgccttcc tgttaaaaaa ggctgccttc cttcaaat ttttttgtt
1440
ttcttaatga tgttaagcat ttatgctcac tggaaacaaa caaaagcag ctgaaaaagt
1500
gcatcaactc ctctttttct gagaaacatg gagcagcgca cggccaggcg atgccagttc
1560

gtgtgctgtg atgcccgcact gtgttcccca tgacagtggc ccatcatcgt gcactcgtca
1620
tactcagaag tccaaagtgc attctctctt aaagtagcct ctataactct gttttattta
1680
taaatagtat tccctatggc tgccactctt atttacctt aaataatttc tgaaatttaa
1740
ccttttcaga atgcattgtt gaacaagat aaagattgcc ttttttgaat tttttaaat
1800
ttgtttttta aagcatatac caccttagtt cattcatgta tcttggttaa gcactctaat
1860
cagacttatt tttaattact gaattattct tagacgtttt gggacagatt ttatgtaate
1920
tttataagta tgatttctga agaaaagcaa atgcattagt atgtttgcct taaacttgta
1980
gactaaacca agtattgtaa aataaacagc gataacagtg atagttttta actctatggt
2040
cattgtatca ctctggaaaa tgtggagtag ctgtaataaa tctactcctg tattatgctt
2100
tacagtgcag gtcttagttt ttcttttttc tcatttcttt tgaaatggca tctcgaacaa
2160
agtcacccaa tccctttaca aaagaatgaa ctgctcctct gtgtgtactt catagaaggt
2220
ggaatcggag agaggcaggt tagtgacagt tattctctgaa atacaggagc agagtacagt
2280
ctgttgttgt ttcccgatt ccgcgcctag ctacgccaat taagcatgag acataggcca
2340
ttgagccact tagtagttat gcgagtgat agattgggtat gtagagggaa agaggctgc
2400
tgtaagaac aacacttggt tgtctgtggg gaaagaaaa cagaatactt gagatgaaa
2460
ttggcatata aataggatac tatcgccagt agttatatta caaacattat cggcctttct
2520
agtgtgaatg aacattagac acattattgt cattcctagt ttaaggttaa ggttcgctgg
2580
ttggattttt ccactatctt ttcttaattt ttctaccatt tggagaccgt aggcatttgg
2640
gcctgtcacc ccttggatgg gtctctagtt tgtttacatt ttcttgacc ctctgagcg
2700
ccgcttcttg gtctaatecc cagtcgtgat gattccacac ttcttcagcc gcattgttgc
2760
ttgcctcatt catgagctgg tcagcgtttc gtctctttaa ctgacatgtt cccagtgct
2820
gtttgaactg ttgagtttcc gttgctggct gagtgcgttt tgtccttcac gtaaccttg
2880
ctggtaaaaa taagcccatg tgatgtccac cagtggtaga atgctggacc gagagcccta
2940
gctctggat ccagggtctag gcccttcac tctgtctctg tggccacagg caggtttggc
3000
tgacctctgc ctcagttctc gactctaaag gacatactga cctacctcac aggggtgttg
3060
tgaggattaa taaatgttgg tactctgctt tggaaatgtg aaatgtctgt gtaaattgta
3120
agaaatacta agtatagggc cagaagctat acagtgtttc acttaaccgt ttgccattct
3180

gtatttaccag aggtggtctt ttctggggaa ggaagtagag tggaaggtag atcccttggc
 3240
 cccttggttta cattattagg gtgcttattg taggaatgca ctctaaaaag tgggcgtaga
 3300
 atgaaagcag cagtcagggt gtcctccctt ttctgtagtt tcacttttct tgcctcaagt
 3360
 tacagcagtc acctgaaatc tgaaaataact aaatgaaaaa ctccagaaac a
 3411

<210> 5842

<211> 460

<212> PRT

<213> Homo sapiens

<400> 5842

Xaa Ala Phe Trp Trp Thr Ser Thr Pro Thr Arg Gly Gly Val Gln Val
 1 5 10 15
 Ala Lys Trp Lys Trp Arg Arg Glu Met Glu Arg Pro His Pro Pro Ser
 20 25 30
 Thr Leu Trp Gly His Glu Asn Pro Phe Ser Asp Leu Pro Ser Gly Thr
 35 40 45
 Leu Asn Phe His Pro Val Trp Thr Ser Arg Thr Cys Ser Arg Pro Pro
 50 55 60
 Phe Cys Leu Ser Gln Ile Val Gln Leu Lys Ala Ile Asn Val Asp Leu
 65 70 75 80
 Gln Ser Asp Ala Ala Leu Gln Val Asp Ile Ser Asp Ala Leu Ser Glu
 85 90 95
 Arg Asp Lys Val Lys Phe Thr Val His Thr Lys Ser Ser Leu Pro Asn
 100 105 110
 Phe Lys Gln Asn Glu Phe Ser Val Val Arg Gln His Glu Glu Phe Ile
 115 120 125
 Trp Leu His Asp Ser Phe Val Glu Asn Glu Asp Tyr Ala Gly Tyr Ile
 130 135 140
 Ile Pro Pro Ala Pro Pro Arg Pro Asp Phe Asp Ala Ser Arg Glu Lys
 145 150 155 160
 Leu Gln Lys Leu Gly Glu Gly Glu Gly Ser Met Thr Lys Glu Glu Phe
 165 170 175
 Thr Lys Met Lys Gln Glu Leu Glu Ala Glu Tyr Leu Ala Ile Phe Lys
 180 185 190
 Lys Thr Val Ala Met His Glu Val Phe Leu Cys Arg Val Ala Ala His
 195 200 205
 Pro Ile Leu Arg Arg Asp Leu Asn Phe His Val Phe Leu Glu Tyr Asn
 210 215 220
 Gln Asp Leu Ser Val Arg Gly Lys Asn Lys Lys Glu Lys Leu Glu Asp
 225 230 235 240
 Phe Phe Lys Asn Met Val Lys Ser Ala Asp Gly Val Ile Val Ser Gly
 245 250 255
 Val Lys Asp Val Asp Asp Phe Phe Glu His Glu Arg Thr Phe Leu Leu
 260 265 270
 Glu Tyr His Asn Arg Val Lys Asp Ala Ser Ala Lys Ser Asp Arg Met
 275 280 285
 Thr Arg Ser His Lys Ser Ala Ala Asp Asp Tyr Asn Arg Ile Gly Ser
 290 295 300
 Ser Leu Tyr Ala Leu Gly Thr Gln Asp Ser Thr Asp Ile Cys Lys Phe

```

305          310          315          320
Phe Leu Lys Val Ser Glu Leu Phe Asp Lys Thr Arg Lys Ile Glu Ala
          325          330          335
Arg Val Ser Ala Asp Glu Asp Leu Lys Leu Ser Asp Leu Leu Lys Tyr
          340          345          350
Tyr Leu Arg Glu Ser Gln Ala Ala Lys Asp Leu Leu Tyr Arg Arg Ser
          355          360          365
Arg Ser Leu Val Asp Tyr Glu Asn Ala Asn Lys Ala Leu Asp Lys Ala
          370          375          380
Arg Ala Lys Asn Lys Asp Val Leu Gln Ala Glu Thr Ser Gln Gln Leu
385          390          395          400
Cys Cys Gln Lys Phe Glu Lys Ile Ser Glu Ser Ala Lys Gln Glu Leu
          405          410          415
Ile Asp Phe Lys Thr Arg Arg Val Ala Ala Phe Arg Lys Asn Leu Val
          420          425          430
Glu Leu Ala Glu Leu Glu Leu Lys His Ala Lys Gly Asn Leu Gln Leu
          435          440          445
Leu Gln Asn Cys Leu Ala Val Leu Asn Gly Asp Thr
          450          455          460

```

<210> 5843

<211> 6446

<212> DNA

<213> Homo sapiens

<400> 5843

```

ncgtacgccg ccaatgtcta cacctcagtg gtggaagagc tggcccgccg ccagcagcgc
60
cggttcatcg ctgtggagca ggagtttttc cggctgtggt gggatggcgt cgcctcggac
120
cagcagaaat accaggtccg ccagctcctg gaggaagagc gcttggaatt tgtcatcgga
180
ggccagggtca tgcatgacga ggctgtgacg caccttgatg accagatcct gcagctcaca
240
gaaggacacg ggttttctcta tgaaacattt gggatccggc cacagtcttc ctggcacggtt
300
gaccogtttg gcgcctctgc caegacgccc accctatttg cgtggcgagg cttcaatggc
360
cacctcggct cccggatcga ctacgacctg aaggcagcca tgcaggaggc cggggggctg
420
cagttcgtgt ggcgagggtc cccatccctc tcagagcggc aggaatctt cagccacatc
480
atggaccagt acagctactg caccocgtcc cacatccctt tctccaacag gtcagatttt
540
tactggaatg gcgtggctgt cttcccacag cctccccagc atgggggtgta ccccaacatg
600
agtgaacctg tcaccccagc caacatcaac ctctatgccg aggcctgggt ggccaacgtg
660
aagcagaggg ccgcctgggt ccggacacgg cagctcctct ggcctcgggg atgtgacaag
720
cagttcttca atgcctcgtg gcagtttgcc aacatggacc cgctgctgga ccacatcaac
780
agccatgctg ccgagctcgg tgtctcgggt cagtatgcca cgctgggcga ctacttcctg
840

```

gccctgcacg ctctcaatgt cacctggcgt gtcgcgacc accacgactt cctgccctat
900
tccacagaac cattccaggc ctggacgggc ttctacagct cccgcagctc actgaagggg
960
ctggcccggc gagccagcgc cttgtgttat gccggggagt ccatgttcac acgctacctg
1020
tggccggccc ccctgggcca tctggacccc acctgggccc tgcagcagct ccagcagctt
1080
cgctggggcg tctccgaggt ccagcaccat gatgccatca ctgggactga gtcccccaag
1140
gtgagagaca tgtacgcaac gcacctggcc tcggggatgc tgggcgtgcg caagctgatg
1200
gcctccatcg tcctagatga gctccagccc caggcaccca tggcgccagc ctccgatgca
1260
ggacctgcag gacattttgc ctccggtctac aaccgcctgg cctggacggt caccaccatc
1320
gtcaccctga ctgttggttt cctgggagtc cgcgtcacag atgaggcggg ccaccacgtg
1380
ccctcgcgaga tccagaactc aacagagacc ccatctcgct atgacctgct tattctgacc
1440
acaatcccg gctcagtta ccggcactac agcatcagac ccatctgagg ggcccaagag
1500
ggcacccagg agccggctgc cactgtggcg agcacccctc aatttggccg caggctgagg
1560
agacgcacca gccatgggg caggtacttg gtgcctgtgg caaacgactg ctacattgtg
1620
ctgctcgacc aggataccaa cctgatgcac agcatctggg agagacagag taaccgaacg
1680
gtgcgcgtga cccaggaatt cctggagtao cacgtcaaca gggatgtgaa acagggcccc
1740
atttccgata actacctgtt cacaccgggc aaggccgcgg tgccctgcgtg ggaagctgtg
1800
gaaatggaga ttgtggcggg acagcttggt actgagatcc ggcagtactt ctacaggaaac
1860
atgacagcac agaattacac gtatgcaate cgctcccgcc tccccatgt gccgcagggc
1920
catgacgggg agctgctctg ccaccggata gagcaggagt accaagccgg cccctcgagg
1980
ctgaacctgt aggctgtcct gaggaccagc accaacctaa acagccagca ggtcatctac
2040
tcagacaaca acggctacca gatgcagcgg aggccctacg ttctctatgt gaacaacagc
2100
atcgcccgga attactaccc catggttcag tcggccttca tggaggatgg caaaagcagg
2160
cttggtgtgc tgcggagcgc ggcacatggc atctccagcc aagggaatgg cgaggtggag
2220
gtcatgctcc accggcggtc gtggaacaac ttgcactggg acctgggcta caacctcagc
2280
ctgaacgaca cctcagtcgt ccaccagtg ctctggcttc tgctgggata ctgttccctc
2340
accactgccc tgcgccagag gagcgcactg gcgctgcagc acaggcccggt ggtgtgttcc
2400
ggagacctcg ctgggactgc gccgaagctc ccaggacccc agcagcaaga ggcctgtgag
2460

ctgccccga atcttcacct gcagatcctg agcatccctg gctggcgcta cagctccaac
2520
cacacggagc actctcagaa tctccgaaa ggccatcgag ggaagccca ggctgacctc
2580
cgccgtgtcc tgctgcggt ctaccacctg tatgaagtgg cggaggaccc agtcctgtct
2640
cagccagtaa cagtgaatct ggaggtgaac tccccaccc ccatccagac cataagccag
2700
ggaagcaaac cctagatgaa gcccacagaa actgccttgg caaagagatc cagcaggggt
2760
tcctcccaaa tggacgtgg tatgggcccc accccgccct tcttcattgt cttctgggtt
2820
tgtcaggat tacaactggc ctgggttttt aggggttttt gtgtatatgt gagacaggat
2880
ctcactctgt tgccagtct ggggtgcagt ggcacaaatc cagctcactg caacctctgc
2940
ctccctgggt caagtgatcc tcccacctca acctcccaag taactgggat cacagggggc
3000
cgccaccacg atggctaagt tttttttttt ttttttttga gaccgagttt cgctctcgtc
3060
cccaggctg gagtgcattg gtgcgctctc agctggctgc aacctccatc tcccaggttc
3120
aagtgattct cctgcctcag cctcccgagt agctgggatt acaggcatgt gccaccaagc
3180
cggctcaatt tttttgtact ttttagtagag acaggggttc tccatgttgg tcaggctggg
3240
cacgaacccc tgacttcagg tgatccacct gcctcgccct cgcaaagtcg tgggattaca
3300
ggcgtgagcc accaagcctg gcctagtttt tttattttta gtagagacac ggtcttgcg
3360
tgttgctcag gctggctctg aacgtctggc ctcaagcaat ctgcctgtct tagcctcctg
3420
aagtgtctgg attacaggcg tgagtggcct gtattttctt tcttatttat tctgtggtaa
3480
aactttttaa acacagacaa catctgtgta atccaaaaac aaaacagatt ccccatagag
3540
ttgctttgaa aggtgactta gagtgcagac atccagggtc cacaccagg cccctetacg
3600
ggggcatctc cgccacccca tgcctctggg cctcagtttc ccccatgta aaatggggag
3660
aggtagagt tctttgccc gaaggttgct gagaggccct ggcactaagg ggcctcgtgc
3720
agtgtcaggg cccccaggcc tcgtcccct ccaggttccc ctcttggtg atgttgccct
3780
ctcagctcta ctatcaggcg aggtcttcgc cactgtgcct gccacgcct cctccccaga
3840
aggcatgacc tgagccgcct catttcttcc caggtttgca ttctttctat ttcatctct
3900
gtcatggag aatttctgtg aatctctgtg tttctgcctt gggcctcctt cgacatctga
3960
gtcttcaggg gaatccagag aagccccagt accttttcgc catgatgtct tactggggca
4020
cccacctcct ctttcatgat cctcgccagg gaggatcctt tcttcacggt ccttggcctg
4080

cctgagagca ggtctaggcc atggcgggta ccagtgccca gcacagggcc ggcttgcctt
4140
gggaagcaag gaggccggcg tgggacctgg aagtltggta tctgatgtc ccccgtttca
4200
cagatggaag caccaaggcc ctgagacaag gagacgggtg ggatggacac catgactccc
4260
tgcccaacct ggacgggtgt ggggtggaaa gaccattgag ttaggaaacg agtgagtgtg
4320
gctgcaagtc aaaaaacacc taacagatgt gcttagaaca gaggacagag tgtttttctca
4380
cggaacaggc atgtccgatg gaccccaagc gctgtcaccg tgggcccgat cactgtcgtc
4440
ttcccggcat cgccggcaga ctggcttttg tcttttgccg tctgcttgtt tgcggtcaca
4500
agatggcaca ggccctccctc atgagcaaat ttcaaggcag ggtggggctc ggcatagtgt
4560
gccagaaagg ccttgcccta gcgtggctct ctccctccgt cagcacacag aagcttctcc
4620
aagagccacc cccaccctc ctgctccaca gacttttcca gacccctaag ggccctctgc
4680
ctcccttagt tgtaagggtg gctgggacaa ggccatttgg gaaaggggga tggggttaact
4740
gtggctggct tcctccctgg actgggcacg gggccacctg agcaatgtgg ggagaggaga
4800
actccgcgtg ggggtgggca gctcaaaatg ccacacctcc cgggctgtct ctccagctcg
4860
gccacctggg aaagcatgca ctcccgctt cagtgtctct atctgtaaaq tacacggcca
4920
gtcctgtctc ccgcatgtgt ctgtgagaag cagatgaggg agctgtgtca ggcaccaggg
4980
gaggacctgg gctcctgagg acaccgagtt cgtgggtgtg ctgccctgct gctgtcttgg
5040
ttctctgctc agctctggaa ctltggtgcag ctcaactctc ctctgtctct ctccctgcag
5100
gctgtgtctc aggcgctggg gtccgtggtg gcagtggagg agcgtctgct cacagggacc
5160
tgggatttga gcatgtgtca ccgctggagc tggaggacgg ggccctggccg ccacagaggt
5220
gacaccacct ctccctcgag gccaccagga ggccccatca tcaccatcca cccaaaggaa
5280
atccggagct tctttattca ctttcaacag cagttagccc tgggcagatg cccctcccc
5340
agggtctccc ccaggaaact catgtaacag aacagaccga ggacagggaa aagcagtgcg
5400
gagggatggg actggggagt cagctgtctc tctgcaggct aatggcagga aatggtcata
5460
tttggggttt ttccctaatt tttttaaaca aaaattacat tacaagatcc aggttcttcc
5520
ccccacact caatcaagcc agccctctcc tcttctgtca cgtaaaggat atttggcaca
5580
ctcatgctc attcattcac aaaaacacaa ccaggactt tctgcctaag gcagagcaca
5640
agactcacag cagcaccgaa gcgcattctc cgtccgggccc ctgccaggct tgccaggctg
5700

ccagtggtaa ctgtggacct actgcgtgcc acgtgttttc atagactcat cccatgctgg
 5760
 caacagccct gcaaggggct tggctctgcc acagggcagg agaggaagtt gtatgcgcta
 5820
 gcgagagttc cagccccaga cgcacacctg tgctcagggt caccgctgc cgagcagaga
 5880
 aggcacagca gccgtcagag tccatgagag gtgaaccac acagcaggga tgtccaatat
 5940
 cagaactatt aatatcaata aaagtataac ctctccagggt ctatgccccaa gagaattgaa
 6000
 aacatccatc cacacaatac ctgtgtctccc gcgttcacag cagcattact caaaagtcaa
 6060
 acggtagcaa caaccacaaat gtccatccac agatgaatta agacatgaag tgtgttctgt
 6120
 ccatacaatg gaatattatt tggccataaa aaggaaggaa attctgacgc atgccacagc
 6180
 ctgagtgaat cctacaaata ttacgctaag tgaaagaagc caatcacgag ttatgtgaa
 6240
 atgtccagaa taggcaaatac tgtgtatcag agacaaagca cattggtggt tgccagggtac
 6300
 tggaggaaga gagaagaggc atgacagcta acagggacgg gctttctttt gaagatgatg
 6360
 aaatttgtga atgatggttg cacaactttg tgaataatac agaaaccaat gaattaaaaa
 6420
 ctttggaga tgaaaaaaaa aaaaaa
 6446

<210> 5844

<211> 823

<212> PRT

<213> Homo sapiens

<400> 5844

Gly	His	Gly	Phe	Leu	Tyr	Glu	Thr	Phe	Gly	Ile	Arg	Pro	Gln	Phe	Ser
1				5					10					15	
Trp	His	Val	Asp	Pro	Phe	Gly	Ala	Ser	Ala	Thr	Thr	Pro	Thr	Leu	Phe
			20						25				30		
Ala	Leu	Ala	Gly	Phe	Asn	Ala	His	Leu	Gly	Ser	Arg	Ile	Asp	Tyr	Asp
			35					40				45			
Leu	Lys	Ala	Ala	Met	Gln	Glu	Ala	Arg	Gly	Leu	Gln	Phe	Val	Trp	Arg
	50					55					60				
Gly	Ser	Pro	Ser	Leu	Ser	Glu	Arg	Gln	Glu	Ile	Phe	Thr	His	Ile	Met
	65					70				75				80	
Asp	Gln	Tyr	Ser	Tyr	Cys	Thr	Pro	Ser	His	Ile	Pro	Phe	Ser	Asn	Arg
				85					90					95	
Ser	Gly	Phe	Tyr	Trp	Asn	Gly	Val	Ala	Val	Phe	Pro	Lys	Pro	Pro	Pro
			100				105						110		
Asp	Gly	Val	Tyr	Pro	Asn	Met	Ser	Glu	Pro	Val	Thr	Pro	Ala	Asn	Ile
			115				120					125			
Asn	Leu	Tyr	Ala	Glu	Ala	Leu	Val	Ala	Asn	Val	Lys	Gln	Arg	Ala	Ala
	130					135					140				
Trp	Phe	Arg	Thr	Pro	His	Val	Leu	Trp	Pro	Trp	Gly	Cys	Asp	Lys	Gln
	145					150				155				160	
Phe	Phe	Asn	Ala	Ser	Val	Gln	Phe	Ala	Asn	Met	Asp	Pro	Leu	Leu	Asp

165 170 175
 His Ile Asn Ser His Ala Ala Glu Leu Gly Val Ser Val Gln Tyr Ala
 180 185 190
 Thr Leu Gly Asp Tyr Phe Arg Ala Leu His Ala Leu Asn Val Thr Trp
 195 200 205
 Arg Val Arg Asp His His Asp Phe Leu Pro Tyr Ser Thr Glu Pro Phe
 210 215 220
 Gln Ala Trp Thr Gly Phe Tyr Thr Ser Arg Ser Ser Leu Lys Gly Leu
 225 230 235 240
 Ala Arg Arg Ala Ser Ala Leu Leu Tyr Ala Gly Glu Ser Met Phe Thr
 245 250 255
 Arg Tyr Leu Trp Pro Ala Pro Arg Gly His Leu Asp Pro Thr Trp Ala
 260 265 270
 Leu Gln Gln Leu Gln Gln Leu Arg Trp Ala Val Ser Glu Val Gln His
 275 280 285
 His Asp Ala Ile Thr Gly Thr Glu Ser Pro Lys Val Arg Asp Met Tyr
 290 295 300
 Ala Thr His Leu Ala Ser Gly Met Leu Gly Val Arg Lys Leu Met Ala
 305 310 315 320
 Ser Ile Val Leu Asp Glu Leu Gln Pro Gln Ala Pro Met Ala Ala Ser
 325 330 335
 Ser Asp Ala Gly Pro Ala Gly His Phe Ala Ser Val Tyr Asn Pro Leu
 340 345 350
 Ala Trp Thr Val Thr Thr Ile Val Thr Leu Thr Val Gly Phe Pro Gly
 355 360 365
 Val Arg Val Thr Asp Glu Ala Gly His Pro Val Pro Ser Gln Ile Gln
 370 375 380
 Asn Ser Thr Glu Thr Pro Ser Ala Tyr Asp Leu Leu Ile Leu Thr Thr
 385 390 395 400
 Ile Pro Gly Leu Ser Tyr Arg His Tyr Ser Ile Arg Pro Thr Ala Gly
 405 410 415
 Ala Gln Glu Gly Thr Gln Glu Pro Ala Ala Thr Val Ala Ser Thr Leu
 420 425 430
 Gln Phe Gly Arg Arg Leu Arg Arg Arg Thr Ser His Ala Gly Arg Tyr
 435 440 445
 Leu Val Pro Val Ala Asn Asp Cys Tyr Ile Val Leu Leu Asp Gln Asp
 450 455 460
 Thr Asn Leu Met His Ser Ile Trp Glu Arg Gln Ser Asn Arg Thr Val
 465 470 475 480
 Arg Val Thr Gln Glu Phe Leu Glu Tyr His Val Asn Arg Asp Val Lys
 485 490 495
 Gln Gly Pro Ile Ser Asp Asn Tyr Leu Phe Thr Pro Gly Lys Ala Ala
 500 505 510
 Val Pro Ala Trp Glu Ala Val Glu Met Glu Ile Val Ala Gly Gln Leu
 515 520 525
 Val Thr Glu Ile Arg Gln Tyr Phe Tyr Arg Asn Met Thr Ala Gln Asn
 530 535 540
 Tyr Thr Tyr Ala Ile Arg Ser Arg Leu Thr His Val Pro Gln Gly His
 545 550 555 560
 Asp Gly Glu Leu Leu Cys His Arg Ile Glu Gln Glu Tyr Gln Ala Gly
 565 570 575
 Pro Leu Glu Leu Asn Arg Glu Ala Val Leu Arg Thr Ser Thr Asn Leu
 580 585 590
 Asn Ser Gln Gln Val Ile Tyr Ser Asp Asn Asn Gly Tyr Gln Met Gln

595 600 605
 Arg Arg Pro Tyr Val Ser Tyr Val Asn Asn Ser Ile Ala Arg Asn Tyr
 610 615 620
 Tyr Pro Met Val Gln Ser Ala Phe Met Glu Asp Gly Lys Ser Arg Leu
 625 630 635 640
 Val Leu Leu Ser Glu Arg Ala His Gly Ile Ser Ser Gln Gly Asn Gly
 645 650 655
 Gln Val Glu Val Met Leu His Arg Arg Leu Trp Asn Asn Phe Asp Trp
 660 665 670
 Asp Leu Gly Tyr Asn Leu Thr Leu Asn Asp Thr Ser Val Val His Pro
 675 680 685
 Val Leu Trp Leu Leu Leu Gly Ser Trp Ser Leu Thr Thr Ala Leu Arg
 690 695 700
 Gln Arg Ser Ala Leu Ala Leu Gln His Arg Pro Val Val Leu Phe Gly
 705 710 715 720
 Asp Leu Ala Gly Thr Ala Pro Lys Leu Pro Gly Pro Gln Gln Gln Glu
 725 730 735
 Ala Val Thr Leu Pro Pro Asn Leu His Leu Gln Ile Leu Ser Ile Pro
 740 745 750
 Gly Trp Arg Tyr Ser Ser Asn His Thr Glu His Ser Gln Asn Leu Arg
 755 760 765
 Lys Gly His Arg Gly Glu Ala Gln Ala Asp Leu Arg Arg Val Leu Leu
 770 775 780
 Arg Leu Tyr His Leu Tyr Glu Val Gly Glu Asp Pro Val Leu Ser Gln
 785 790 795 800
 Pro Val Thr Val Asn Leu Glu Val Asn Phe Pro Thr Pro Ile Gln Thr
 805 810 815
 Ile Ser Gln Gly Ser Lys Pro
 820

<210> 5845

<211> 2762

<212> DNA

<213> Homo sapiens

<400> 5845

aaattgtat ccagggtccgt tccagctttc ttccacagtg cctgtgcttg ggggcagcac
 60
 gtgctgagca agggtaaggc tgccggaagc agcgtgtggg gtgcttgga gattgacagc
 120
 acatccctgc tgggtggcagc agccttcctg agggaggtgt cctectgtga ttatagggcc
 180
 ttgtcagggtg gagatggaat tggttggcgc ggcacattgg ctcacaccta taatcccagc
 240
 atttttgtag accgaggtga gcgatcact tgagctcagg agtttgaac caacctggga
 300
 aacataggga gaccccatct ctccctctc atctcccacc agcccgatct gctcaacttc
 360ggatgtcgat cttggacgag cctggagagc ctccctccc ctgcctcacc 420
 accacctcta ctctgcagtg gaagaaacat tggtttgtgc tgacagatcc aagtctcaaa
 480
 tattacagag actccactgc tgaggaggca gatgagctgg atggtgagat cgacctgcgt
 540
 tcctgcacgg atgtcactga gtacgcgggt cagcgcaact atggcttcca gatccacacc
 600

aaggatgctg tctatacctt gtcggccatg acctcaggca tccggcggaa ctggatcgag
660
gtctctgagaa agaccgtacg tccaacttca gcccagatg tcaccaagct ctcgactctt
720
aacaaggaga acgocgtgca cagctacagc acccagaagg gccccttgaa ggcaggggag
780
cagcgctcgg gctctgaggt catcagccgg ggtggccctc ggaaggcgga cgggcagcgt
840
caggcccttg actacgtgga gctctgcggc ctgaccaggg ctccccgca cggggcccg
900
acccagccc gcactcctga cgcctggcc aagcaggagg agctggagcg ggacctggcc
960
cagcgctcgg aggagcggcg caagtgggtt gaggccacag acagcaggac ccagagggtg
1020
cctgtggtg agggggccgg cggggccctg ggtgcccccc tgaactgagga ccagcaaaa
1080
cggcttagtg aggagatcga gaagaagtgg caggagctgg agaagctgcc cctgccccgag
1140
aataagcggg tgccccctac tgccctgctc aaccaaaggc cgggagagcg ccgagggccc
1200
ccaagtgcag gccacaggc actggagaag gaggaggcat gtgagcgcag cctggcagag
1260
atgggtctct cgcaccagca ggtgatggag gagctgcagc ggcaccacga cggggagctg
1320
cagcgctcgg agcaggagaa ggaagtggctc ctggctgagg agacggcagc caccggcctca
1380
gccattgaag ccatgaagaa ggcctatcag gaagagctga gccgagagct gagcaaaaa
1440
cggagtctcc agcagggccc ggaatggcctc cgggaagcag accagtcaga tgtggaggga
1500
ctgaagcgag agctgcaggt gctatcggag cagtaactgc agaagtgcct ggagattggg
1560
gcactcatcg gccaggctga ggagcgcgag cacacgctgc gccgctgcca gcaggagggc
1620
caggagctcg tcgccacaa ccaggagctg catggccgccc tgtcagagga gatagaccag
1680
ctgcgcggct ctattgcctc gcagggcatg ggcaatggct cggggcgag caacgagcgg
1740
agttcctcgg agctagaggt gctgcttcgc gtaaaagaaa acgaactcca gtacctaaag
1800
aaggaggtgc agtgccctcg ggaagagctc cagatgatgc agaaggacaa gcgcttcacc
1860
tcgggaaagt accaggacgt ctatgtggag ctgagccaca tcaagacacg gtctgagcgg
1920
gagatcgagc agctgaagga gcacctgcgt cttgccatgg ccgccctcca ggagaaggag
1980
tcgatgcgca acagcctggc tgagtagagg tcccggccag ctgcagaccc tccagggtgg
2040
aggaccagcc gccctccttc cctcctggat ggaagtaaaa agccaagctt tctccccacc
2100
ctctgtgggc cacacgtgca cttgcaccca ccacacacac acacacacac acacacacac
2160
acagacacac agacacatac gcacacacgt gcacacatgt acacacggat acacacacac
2220

acacacacac acacacactg catatctgag cagcccccgc gcactggggtc tcaccttgca
 2280
 ccttcttcag gattttatat gtgaagagat ttttatatag atttttttcc tttttttcca
 2340
 aaacacttta tacttttaaa aaaaaaaaaa aaagcaatt cctgggtggct gtgtgcctcc
 2400
 aaccctgggc cccctctgtc tccagccacc ctctgcttgg gcttctgagc tgggtggccct
 2460
 ggcccagagg tctggcggag gccccaggcag cagccatggc ggggtgtctc tacaggggag
 2520
 aggcgggagc ctgccaccct cttcctgccc tacctctac taacacttcc tgccccattt
 2580
 ggacccgtac catggggctc aggacagagg gagctagcag ctggcctcca tggccccaca
 2640
 gcctccttcg aggtctgtct ggggtgcagaa ccgccagagc cacccaaaag gtgtttctct
 2700
 tctgtccctt gaacctctta acttaataaa acgttccagc agcaaaaaaa aaaaaaaaaa
 2760
 ag
 2762

<210> 5846

<211> 257

<212> PRT

<213> Homo sapiens

<400> 5846

Glu Ala Cys Glu Arg Ser Leu Ala Glu Met Glu Ser Ser His Gln Gln
 1 5 10 15
 Val Met Glu Glu Leu Gln Arg His His Glu Arg Glu Leu Gln Arg Leu
 20 25 30
 Gln Gln Glu Lys Glu Trp Leu Leu Ala Glu Glu Thr Ala Ala Thr Ala
 35 40 45
 Ser Ala Ile Glu Ala Met Lys Lys Ala Tyr Gln Glu Glu Leu Ser Arg
 50 55 60
 Glu Leu Ser Lys Thr Arg Ser Leu Gln Gln Gly Pro Asp Gly Leu Arg
 65 70 75 80
 Lys Gln His Gln Ser Asp Val Glu Ala Leu Lys Arg Glu Leu Gln Val
 85 90 95
 Leu Ser Glu Gln Tyr Ser Gln Lys Cys Leu Glu Ile Gly Ala Leu Met
 100 105 110
 Arg Gln Ala Glu Glu Arg Glu His Thr Leu Arg Arg Cys Gln Gln Glu
 115 120 125
 Gly Gln Glu Leu Leu Arg His Asn Gln Glu Leu His Gly Arg Leu Ser
 130 135 140
 Glu Glu Ile Asp Gln Leu Arg Gly Phe Ile Ala Ser Gln Gly Met Gly
 145 150 155 160
 Asn Gly Cys Gly Arg Ser Asn Glu Arg Ser Ser Cys Glu Leu Glu Val
 165 170 175
 Leu Leu Arg Val Lys Glu Asn Glu Leu Gln Tyr Leu Lys Lys Glu Val
 180 185 190
 Gln Cys Leu Arg Asp Glu Leu Gln Met Met Gln Lys Asp Lys Arg Phe
 195 200 205
 Thr Ser Gly Lys Tyr Gln Asp Val Tyr Val Glu Leu Ser His Ile Lys

210	215	220
Thr Arg Ser Glu Arg Glu Ile Glu Gln Leu Lys Glu His Leu Arg Leu		
225	230	235
Ala Met Ala Ala Leu Gln Glu Lys Glu Ser Met Arg Asn Ser Leu Ala		240
	245	250
		255

Glu

<210> 5847

<211> 1021

<212> DNA

<213> Homo sapiens

<400> 5847

```

ggcaogagct cgtgcggcog ggtgagagcg tgcggccgga ttcaccacaa catggcaaat
60
ctttttataa ggaaaatggt gaacctctcg ctctatctca gtctgcacac ggtgaagcct
120
cgagccctct ccacatttct atttgatcc attcgaggtg cagccccctg ggctgtggaa
180
ccggggcgag cagtgcgctc acttctctca ccgggctccc tgccccatct gctgcctgcg
240
ctgggggttca aaaacaagac tgtccttaag aagcgctgca aggactgtta cctggtgaag
300
aggcgggggt ggtggtacgt ctactgtaaa acccatccga ggcaacaagc gagacagatg
360
tagacccttt cctccagag tcacgcacat actcgctcgc gcacacactt ggagaatggt
420
tgtatcttat ggaaggaatt atcacatcaa ggagtcaggg gaaagtgact ggaagcaaac
480
gccctaaaag ttacccatca cgtttcagtg taaatgagta actatagaag acattgcgtt
540
atcttatttc caaacgctc caactaaaaa acattttcct attaaaatag accttccgaa
600
tagcttagtt cattcattct ctctgaactc aggctgcagg tagggatttg atggtgctgg
660
gtgaggcttg gcaggacttc tctatgtctc cgtgaggtcg cttagagcct cttggaagaa
720
gtggtgtttt ggtcaccctg cgctgtacaa gccaaaggctt ggtggcttaa atcagccatt
780
ttacattggt caogattttg tgaggcatat gggatgggct cagctgagca gtttgtctga
840
tctgtgtggc attaactgca ggacccactt ccaagatggc accggctctc ctgtctgggg
900
tctcagtgct cctcaggctg tacgtagcac ctccctcaggc agggcccaca gcgtgctttg
960
cactgccccca cagtgcgctt ccogagagtg ttccgagaga cccaagcaga tgctaogagg
1020
c
1021

```

<210> 5848

<211> 120

<212> PRT

<213> Homo sapiens

<400> 5848

```

Gly Thr Ser Ser Cys Gly Arg Val Arg Ala Cys Gly Arg Ile His His
 1             5             10             15
Asn Met Ala Asn Leu Phe Ile Arg Lys Met Val Asn Pro Leu Leu Tyr
      20             25             30
Leu Ser Arg His Thr Val Lys Pro Arg Ala Leu Ser Thr Phe Leu Phe
      35             40             45
Gly Ser Ile Arg Gly Ala Ala Pro Val Ala Val Glu Pro Gly Ala Ala
      50             55             60
Val Arg Ser Leu Leu Ser Pro Gly Leu Leu Pro His Leu Leu Pro Ala
      65             70             75             80
Leu Gly Phe Lys Asn Lys Thr Val Leu Lys Lys Arg Cys Lys Asp Cys
      85             90             95
Tyr Leu Val Lys Arg Arg Gly Arg Trp Tyr Val Tyr Cys Lys Thr His
      100            105            110
Pro Arg His Lys Gln Arg Gln Met
      115            120

```

<210> 5849

<211> 3174

<212> DNA

<213> Homo sapiens

<400> 5849

```

nttttttttt ttaccaacgg gagatgcagt ttattttacac cagcagccat gggggcagag
60
ggaatacaca gcgtttacaa agtttagctac ctgtacagaa tggattacat atgcaaaaaat
120
aaaaaatctca agaccacagg acagcgtgag cccaccccc ctccccaat gacccagca
180
tgcggtaatg ccaggcgggt ggccctggg catgcgggg ggagtgatgc atggaaggaa
240
aagccaccgg ccatggaat tagtacagaa cccccaca cactcaga cacaggatac
300
aggggtggagc acacctagcc ggggtgggaa ggatgggaat tgaacccac acagcctgct
360
gttagaggga ggggagtggt gagctcctag ccctgttca actacatggt aggggggggc
420
actctctccc cagaaggaaa agggtttgtt cctcaggggt cctgctgga ccaagcccat
480
ctcttaccca gcctgggcag ggggctctgc cctgaggggc ggccaaggaa caatggggaa
540
gtttatgtgg acaaacagct tcccaagcta cttccactt ctccctctc caaccagaag
600
gggggaaaag ggagaggcca cagggcaaa agtgatttag gcctgagct gcagctgcct
660
ctcagaaggg agatgggcc acagccttc tcccttcacc ttcagccac tcccagact
720
gcactggaa gcggctagag gcctgctgag atcctcctct cctctggcc tctctctgga
780
gggagactac ggagggccaa gaatagagaa gccaggccc cgggatttat tctaactcct
840

```

gccccaaawy mmttggtttt ttaaaaaata atcacatttt gtgggttaaa aaccaatttg
900
caaccaggca tgagccacaa tcagaaccac cccagcggga gagcggagt ccagacaggg
960
nattgcagcc coactctctg tgttccctta accctctagg gtccctaacc cgatcagtc
1020
aaccagtctt gggtaactac tacccaaatg tgggatggct cctcttggga agagggtagg
1080
ggacatgttc agcaagtgc agagaacttg gctcagggtc aactccacc cgtgtcagtc
1140
agctctgtct ccagcccags magsgggtct ccagsttggg tctctggagt ngnggtgccc
1200
gcatmgaggg gggacggtac atctctttag gatgtagacc aggcaggtgg gcacactggc
1260
atgacagtcc cacagagggg cagtgcacac ccttccctc cactgacaac ctggggcaca
1320
gaggccaccc tctcttccca cccaactcct agcaaaaggg gagaggcaca agattaggat
1380
ttctctcaga gcccacaaac acaagtacag aataaataac ttaaaagcgc taagggaagg
1440
aaacagggca cgctttggag gcaggagcgc tgagaggaac tgaagccagt caaggtgaag
1500
ggggtggaag cagcagttgg gaacctgggc tgccccgcta ggcagtgagg gcagggtggg
1560
caggaggaac acggggccac ccaggaggg tgaggctggg tcccttctgt gggcaggga
1620
tgaggtaaga aaacatttca aataaagcag caccgttccc tctcaccttg gggcccact
1680
cctcaccagc cctgggtcag ggaggagagg cagggggagg aattctgaca ctctcctc
1740
ttcctacctt ccttttccca tctctgaag ctgttagagg tgaggccctt tctctggcac
1800
ccaaacaaaag gacagctcct gctgccaaag aggcccatgg ggactgagg gaaagggtg
1860
ccctgttagg gggcaggga ggtggcgga gttctggag cccacctcag cagacagcac
1920
tctgtgctgt cctaccttg ggactggggg catttgataa gattctgcac acagacagga
1980
catgcccagc cttgcccctc agctccaagc accggaccca ttcacattgc tgaggcggc
2040
cgaggcagc cccctccagg ctccagcttc aaccacagc ctcccggtgc gccacattgc
2100
ccctcagcag ggttagtcc agttctctgg gtggggggca ggcagtgccc tggcacagt
2160
ccagggtcga ggcgcccctg cctagctgga catccagtaa ctacagaaat aaataggaaa
2220
accgctctcc caccacaaat atgtccaagg cataatatgt ccaggtctga gtccctgcag
2280
ccgaggagtc gtgtctcatt gcagaggact ttgacacccc ccagggggcg ataactcgat
2340
cctctgctgt cctggcccac caagcttccc aagcccaac cccagcagc cgtccatttg
2400
ccaggctatg ccacctgggt gggggtcagg agagagggct ctgctcagcc aaaggctatc
2460

ccttcgaccc aagtcagttg atgtcatcat agatgtctggg cgtcgggggt gccgggtggct
 2520
 ttggcttctt cttcttgttg gaacctaggc cggaggcagc cctaccagg ctcagatggg
 2580
 atttcttttt cttgggttttc cgtgactcag agctgttggc acctagaccc catccctgat
 2640
 tttcaactgt cttggaggag cctgaatcag aggggtgagag gtcagaggag ccgtcccatc
 2700
 gaagcggcgt gatcagggcc tggctgtcag tcatgtcaaa gctgtcatta tccagggagc
 2760
 tctcgacctc tggaaggaca gccgagggcc cgagaaaata aatccgtacg gttcgctctc
 2820
 gctcatctgt gtgctgtggg cagcgcaggg accttgtgca catcttcttg gtgtgttcag
 2880
 aaatcacccc acattgcgtg gttagcaggc tgcgaagctc ctccggcccc aggggtctcat
 2940
 agctgatccc agttgaattg ttatacttaa aaggatccga attgctaagt tccccatttt
 3000
 tgtgttttaa tgacttggat cttcgagggg aattgggggt ctggaatggg agataccata
 3060
 gctttgggga aagggtaacg aaaaggggga gccgagaacc caggggaagg aaaaagattt
 3120
 gacaaagcag catcctcaaa ttcctactct tcttccccag taggaggcct gtct
 3174

<210> 5850

<211> 154

<212> PRT

<213> Homo sapiens

<400> 5850

Gly	Ala	Gly	Lys	Val	Ala	Ala	Val	Leu	Asp	Ala	His	Leu	Ser	Arg	Gln
1			5					10					15		
His	Ser	Val	Pro	Ala	Tyr	Pro	Trp	Asp	Trp	Gly	His	Leu	Ile	Arg	Phe
			20					25					30		
Cys	Thr	Gln	Thr	Gly	His	Ala	Gln	Pro	Cys	Pro	Ser	Ala	Pro	Ser	Thr
			35				40					45			
Gly	Pro	Ile	His	Ile	Ala	Glu	Gly	Gly	Arg	Gly	Arg	Pro	Pro	Pro	Gly
			50			55						60			
Ser	Ala	Ser	Asn	Pro	Gln	Pro	Pro	Gly	Ser	Pro	His	Cys	Pro	Ser	Ala
65					70				75				80		
Gly	Leu	Ser	Pro	Val	Pro	Gly	Val	Gly	Gly	Arg	Gln	Cys	Pro	Gly	Thr
				85				90					95		
Val	Pro	Arg	Val	Arg	Arg	Pro	Gly	Leu	Ala	Gly	His	Pro	Val	Thr	His
			100				105					110			
Arg	Ile	Asn	Arg	Lys	Thr	Ala	Ser	Pro	Pro	Asn	Leu	Cys	Pro	Arg	His
			115				120					125			
Asn	Met	Ser	Arg	Ser	Glu	Ser	Cys	Thr	Pro	Arg	Ser	Arg	Ala	Pro	Leu
			130			135						140			
Gln	Arg	Thr	Leu	Thr	Pro	Pro	Arg	Gly	Ala						
145						150									

<210> 5851

<211> 488

<212> DNA

<213> Homo sapiens

<400> 5851

tttttttttt tatgaaaaaa gcagcaactc tttagtgtac atggaattaa tctgacagca
 60
 attaaatgtg ttttaagcatc tggcatatct cctcaattgc accaaaagaa tttggaagca
 120
 cttgggtttg tctcaaaggc aaaaggaag gacgaggaag gggccaggcc tcccgcagg
 180
 ccccccccc cctcacattt ctgagtcgcg atacatcccg ttgattaagt agtccacctg
 240
 ggtgtagtcc ttcttctgtt agctctcata ggcattctgc ctgcttgtgt cctctgttgt
 300
 gacttcata gaggtaggtt gggctgccga agtccctttg gtcaatgtga caggagaagc
 360
 tgtgtccatg gttacatcct cagacgtttt attatcaact gttccacag atgcattcct
 420
 cttgactaat cccttcaca ttttgttagg gacaaagtgt cctgggaggg ctgcggttcc
 480
 tgacgcgt
 488

<210> 5852

<211> 82

<212> PRT

<213> Homo sapiens

<400> 5852

Met	Trp	Lys	Gly	Leu	Val	Lys	Arg	Asn	Ala	Ser	Val	Glu	Thr	Val	Asp
1			5					10				15			
Asn	Lys	Thr	Ser	Glu	Asp	Val	Thr	Met	Ala	Ala	Ser	Pro	Val	Thr	
		20					25				30				
Leu	Thr	Lys	Gly	Thr	Ser	Ala	Ala	His	Leu	Asn	Ser	Met	Glu	Val	Thr
		35				40				45					
Thr	Glu	Asp	Thr	Ser	Arg	Thr	Asp	Ala	Tyr	Glu	Ser	Tyr	Lys	Lys	Lys
	50				55					60					
Asp	Tyr	Thr	Gln	Val	Asp	Tyr	Leu	Ile	Asn	Gly	Met	Tyr	Ala	Asp	Ser
65					70				75					80	
Glu	Met														

<210> 5853

<211> 487

<212> DNA

<213> Homo sapiens

<400> 5853

nacgcgtgaa ggggaatggaa ggtgcagaga ccagagctga gggaggcttc aggggattac
 60
 agacggcttc aagaggaggg ccagcccggt ccgcggccc ctgacacccc atcaggccgc
 120
 tcaggccacg cagctccatg gaggacgccc gcgaggaccc caccacgttt gctgccact
 180

ctctgcccag tgaccccggt ctcttgccca ctgtgaccaa cgcatacctg ggcacacgag
 240
 tgtttcacga cagctgcac gtgagcggcg tgtacaatgg ggctggcggg gacacgcacc
 300
 gggccatgct gccacgcccc ctcaacgtcc ggctggaggc ccccgagggt atggggggagc
 360
 agctgaccca gaccttcgcc ctggacacca acacaggctc ctttcttcac accctggagg
 420
 gccccgcgtt ccgggcctcc cagtgcctct atgcgcctcg cagctgccc cagctgtctg
 480
 ctttcg
 487

<210> 5854

<211> 68

<212> PRT

<213> Homo sapiens

<400> 5854

Arg	Glu	Trp	Lys	Val	Gln	Arg	Pro	Glu	Leu	Arg	Glu	Ala	Ser	Gly	Asp
1				5				10					15		
Tyr	Arg	Arg	Ser	Gln	Glu	Gly	Gly	Pro	Ala	Arg	Pro	Ala	Ala	Pro	Asp
			20					25				30			
Thr	Pro	Ser	Gly	Arg	Ser	Gly	Pro	Ala	Ala	Pro	Trp	Arg	Thr	Pro	Ala
			35				40				45				
Arg	Thr	Pro	Pro	Arg	Leu	Leu	Pro	Thr	Leu	Cys	Pro	Val	Thr	Pro	Val
	50				55					60					
Ser	Trp	Pro	Leu												
65															

<210> 5855

<211> 362

<212> DNA

<213> Homo sapiens

<400> 5855

gcgcgccagg ggcaggggag ggatggagcc agcgagggtc gggatagcga gcgaggggtg
 60
 gagggactcc gtaacagccc ctctgtgctc agcggatccc cttctagcac tcctccctc
 120
 tcctcccgac cctcccgag gcacctgctg ggggctgtgg ggcccaaagc gggagggagt
 180
 taacgaggtt gttgcagaag tcctcctggc ggcacagaa ggtgtaggag atcaggggaga
 240
 ggcgggggccc catccggtgc tcagtgcgc ggggctcctg gtccttgccc tcctgtcagc
 300
 ccttgagag caccaggctc acttggggtc cgctctcaat gagcatcaac gtgtcctggc
 360
 an
 362

<210> 5856

<211> 113

<212> PRT

<213> Homo sapiens

<400> 5856

```

Met Glu Pro Ala Arg Val Gly Ile Ala Ser Glu Gly Gly Arg Asp Ser
 1           5           10           15
Val Thr Ala Pro Leu Cys Ser Ala Asp Pro Leu Leu Ala Val Pro Pro
 20           25           30
Ser Pro Pro Asp Pro Pro Ala Gly Thr Cys Trp Gly Leu Trp Gly Pro
 35           40           45
Lys Arg Glu Gly Val Asn Glu Val Val Ala Glu Val Leu Leu Ala Ala
 50           55           60
His Glu Gly Val Gly Asp Gln Gly Glu Ala Gly Ala His Pro Val Leu
 65           70           75
Ser Asp Ala Gly Leu Leu Val Leu Gly Leu Arg Ala Ala Leu Gly Glu
 85           90           95
His Gln Ala His Leu Gly Ser Ala Leu Asn Glu His Gln Arg Val Leu
100           105           110
Ala

```

<210> 5857

<211> 1751

<212> DNA

<213> Homo sapiens

<400> 5857

```

gggcggcgccc gagctgaggt ggtgagggac tagctcccg atgtggagaa gctgggggaga
60
aggcgtggga ggaagatgga ctcggtggag aagggggccg ccacctcgt ctccaaccgg
120
cggggggcgac cgtcccgggg ccggccgccc aagctgcagc gcaactctcg cggcgggccag
180
ggccgaggtg gggagaagcc ccgcacctg gcagccctaa ttctggcccc gggaggcgagc
240
aaaggcatcc ccctgaagaa cattaagcac ctggcggggg tcccgtcat ttgctgggtc
300
ctgcgtgcgg ccctggattc aggggccttc cagagtgtat gggtttcgac agaccatgat
360
gaaattgaga atgtggccea acaatttggt gcacaagttc atcgaagaag ttctgaagtt
420
tcaaaagaca gctctacctc actagatgcc atcatagaat ttcttaatta tcataatgag
480
gttgacattg taggaaatat tcaagctact tctccatgtt tacatcctac tgatcttcaa
540
aaagttgcag aaatgattcg agaagaagga tatgattctg ttttctctgt tgtgagagcg
600
catcagtttc gatggagtga aattcagaaa ggagttcgtg aagtgaccga acctctgaat
660
ttaaatccag ctaaacggcc tcgtcgacaa gactgggatg gagaattata tgaaaatggc
720
tcattttatt ttgctaaga acatttgata gagatgggtt acttgcaggg tggaaaaatg
780
gcatactacg aaatgcgagc tgaacatagt gtggatatag atgtggatat tgattggcct
840

```

attgcagagc aaagagtatt aagatatggc tattttggca aagagaaagt taaggaaata
 900
 aaacttttgg tttgcaatat tgatggatgt ctcaccaatg gccacattta tgtatcagga
 960
 gaccaaaaaa aaataatatc ttatgatgta aaagatgcta ttgggataag ttatttaaag
 1020
 aaaagtggta ttgaggtgag gctaatactca gaaagggcct gttcaaagca gacgctgtct
 1080
 tcttttaaac tggattgcaa aatggaagtc agtgtatcag acaagctagc agttgtagat
 1140
 gaatggagaa aagaaatggg cctgtgctgg aaagaagtgg catatcttgg aaatgaagtg
 1200
 tctgatgaag agtgcttgaa gagagtgggc ctaagtggcg ctccctgtga tgcctgttct
 1260
 actgccaga aggctgttgg atacatttgc aaatgtaatg gtggcctggg tgccatccga
 1320
 gaatttgcag agcacatttg cctactaatg gaaaaggtta ataattcatg ccaaaaatag
 1380
 aaattagcgt aatattgaga aaaaaatgat acagccttct tcagccagtt tgcttttatt
 1440
 ttgattaag taaattccat gttgtaatgt tacagagagt gtgatttggg ttgtgatata
 1500
 tatatatgtt gctctacttt tctctttacg caagataatt atttagagac tgattacagt
 1560
 ctttctcaga tttttagtaa atgcaagtaa gaacatcacc aaagttcact ttgtattgta
 1620
 cctctaaaaa ctgtgtgttt gtgtgcttcc aaagatgttg ggattttatt tatctgggga
 1680
 cagtgtgtat ggtaagacat gcccttctat taataaaaact acattttctca aaaaaaaaaa
 1740
 aaaaaaaaaa a
 1751

<210> 5858

<211> 434

<212> PRT

<213> Homo sapiens

<400> 5858

Met Asp Ser Val Glu Lys Gly Ala Ala Thr Ser Val Ser Asn Pro Arg
 1 5 10 15
 Gly Arg Pro Ser Arg Gly Arg Pro Pro Lys Leu Gln Arg Asn Ser Arg
 20 25 30
 Gly Gly Gln Gly Arg Gly Gly Glu Lys Pro Pro His Leu Ala Ala Leu
 35 40 45
 Ile Leu Ala Arg Gly Gly Ser Lys Gly Ile Pro Leu Lys Asn Ile Lys
 50 55 60
 His Leu Ala Gly Val Pro Leu Ile Gly Trp Val Leu Arg Ala Ala Leu
 65 70 75 80
 Asp Ser Gly Ala Phe Gln Ser Val Trp Val Ser Thr Asp His Asp Glu
 85 90 95
 Ile Glu Asn Val Ala Lys Gln Phe Gly Ala Gln Val His Arg Arg Ser
 100 105 110
 Ser Glu Val Ser Lys Asp Ser Ser Thr Ser Leu Asp Ala Ile Ile Glu

115 120 125
 Phe Leu Asn Tyr His Asn Glu Val Asp Ile Val Gly Asn Ile Gln Ala
 130 135 140
 Thr Ser Pro Cys Leu His Pro Thr Asp Leu Gln Lys Val Ala Glu Met
 145 150 155 160
 Ile Arg Glu Glu Gly Tyr Asp Ser Val Phe Ser Val Val Arg Arg His
 165 170 175
 Gln Phe Arg Trp Ser Glu Ile Gln Lys Gly Val Arg Glu Val Thr Glu
 180 185 190
 Pro Leu Asn Leu Asn Pro Ala Lys Arg Pro Arg Arg Gln Asp Trp Asp
 195 200 205
 Gly Glu Leu Tyr Glu Asn Gly Ser Phe Tyr Phe Ala Lys Arg His Leu
 210 215 220
 Ile Glu Met Gly Tyr Leu Gln Gly Gly Lys Met Ala Tyr Tyr Glu Met
 225 230 235 240
 Arg Ala Glu His Ser Val Asp Ile Asp Val Asp Ile Asp Trp Pro Ile
 245 250 255
 Ala Glu Gln Arg Val Leu Arg Tyr Gly Tyr Phe Gly Lys Glu Lys Leu
 260 265 270
 Lys Glu Ile Lys Leu Leu Val Cys Asn Ile Asp Gly Cys Leu Thr Asn
 275 280 285
 Gly His Ile Tyr Val Ser Gly Asp Gln Lys Glu Ile Ile Ser Tyr Asp
 290 295 300
 Val Lys Asp Ala Ile Gly Ile Ser Leu Leu Lys Lys Ser Gly Ile Glu
 305 310 315 320
 Val Arg Leu Ile Ser Glu Arg Ala Cys Ser Lys Gln Thr Leu Ser Ser
 325 330 335
 Leu Lys Leu Asp Cys Lys Met Glu Val Ser Val Ser Asp Lys Leu Ala
 340 345 350
 Val Val Asp Glu Trp Arg Lys Glu Met Gly Leu Cys Trp Lys Glu Val
 355 360 365
 Ala Tyr Leu Gly Asn Glu Val Ser Asp Glu Glu Cys Leu Lys Arg Val
 370 375 380
 Gly Leu Ser Gly Ala Pro Ala Asp Ala Cys Ser Thr Ala Gln Lys Ala
 385 390 395 400
 Val Gly Tyr Ile Cys Lys Cys Asn Gly Gly Arg Gly Ala Ile Arg Glu
 405 410 415
 Phe Ala Glu His Ile Cys Leu Leu Met Glu Lys Val Asn Asn Ser Cys
 420 425 430
 Gln Lys

<210> 5859

<211> 2267

<212> DNA

<213> Homo sapiens

<400> 5859

tttttttttt ttttttgaca gtagacaatg ttgtttgttta tttaaaaatgt ttactccaag
 60
 aaatatatat ataaaaaaaa taataagaca attacagcac taaaccaggc accttcgacc
 120
 aaatcacaac ctctcttttg attccccttc acgctaagcc tttttcaaat tttttttctt
 180

gagctggaag accagtcaga tgcccgcagg gtcagcgcca agcacattcc caaccgggca
240
actgtgtacc ttctctagg agtgcaacac acccttcccc cacaactcct tgttttaag
300
gatttaacc attaggaagc ccatgtttca atctaagcca gaaggagctg cgggacaagg
360
cagctcttcac ttgaaagtc ctttctctgc tccagtcctt gggctagggt tctagaagag
420
gctggctgcc acgtttacat gaggccaccg aagatctaa gtcagctaa cccagggagg
480
ctcctgcaaa ggctgggacc tgggtgctg cgtcctcaac cctctcggtg accacggctc
540
aaaggagaga cctcaagggt gccaggagca cagggtcctg ggctgcattc caggaaagag
600
acctgtccag ggaaacggat caggctgtcg catggaagct tacgtcagag atgggtggtt
660
tggggtgatt tggacaatt aggttagttt agcaaagctc tgaagtagca gaagcttctc
720
ccctgggacta ctgattgaac acagaacaag agatgcgctg ggctgcagac taagtcttag
780
agagatgcag gccagtcctc tcccacaggg ccttgggact ggaggagac acactgctac
840
atgcccccca agggcaggag tcacggtaag gagcgactgg ggtggaaat agggaaaaa
900
gcaacaacaa ctacatcatt ttggcattt taacatggag acagtgcaca gtggttaaca
960
agcaaaagaa aaaaaaact tgaagagacc aatatttaac ttccccatcc acccaagtct
1020
cacacttaag ttctagtccc atctcccca taagcaccac tgaactaaat atctatttta
1080
aagcacccaa accagtccag accctctgga aaccaagagc cccagccaca gctgtgcct
1140
ctcttgggtc caggcgagag gaggggttcg ggaaggcgc ctcataactc actcagcgca
1200
gcacacacgg cggcgagctc gggcacttga cggggacacg ggtggcagtc acggcatccg
1260
tgctgacatg tgaggaagg gactctttgg taatcccaac tatttggtac tagagccaag
1320
caaacgtgac taaaggagc tgggtcagca gaacggtacc cagagtctca gcaacaggat
1380
ggcccgccag aggcaggatc caggcggggg ggagaaaaag agaccaaaag acaaggcgat
1440
cgaggctggc acagaaaggg ctgatccttc ttgcaaggac tggagaatgc acttgactgc
1500
tggctggctc atctcttaat tggcgagtgc gcgtgacaag gctcagccct ggctccacag
1560
ggagccacca agctgactca actgatacaa atgttcccc ctctgcccc ccccaagtc
1620
cccatgggtc cacaatcacc tgattttcat ttggacctct ttaacagcta aagtagatat
1680
aaatggctaa acacagatcc ccaatcccc accagggggg acacggccga ttctataatg
1740
tcgagccag aaggctgtgg gcgtacaggc agccaagggg agaaacagaa ccgacacggg
1800

cctaggccca tctgcaagaa aaagcggaga aggagtgacc cggatgcttc cgaagcacgc
 1860
 gagcgtgatt ttggatggag gcgggccggg gactgcctag ctgctgccgg ttcctgtaag
 1920
 ggacattttt tctgagtaaa tggcgattcc tcttccatgt ggcattctgt tggatcacga
 1980
 tgctaattgt aactggaaaag ggggtgtttg gggagtgat tccaggagagg aagaaagaaa
 2040
 aaacttaaaa aaaaaaaaaa aacctagatt gctcaaagtt tctgcctctt ttgtaggaat
 2100
 ggtaaatcaa ctatgagcaa gtattttaat tcaacattaa gggaaaaaaa aggactttgg
 2160
 aaagcataca gaaaaaaagg tagttaacgt tggatcatgt gtaaaacgga acctcagggg
 2220
 gtctaataca aaatgcacct tcgggtcaact ttgctttttt taaattt
 2267

<210> 5860
 <211> 96
 <212> PRT
 <213> Homo sapiens

<400> 5860
 Met Glu Glu Glu Ser Pro Phe Thr Gln Lys Lys Cys Pro Leu Gln Glu
 1 5 10 15
 Pro Ala Ala Ala Arg Gln Ser Pro Ala Arg Leu His Pro Lys Ser Arg
 20 25 30
 Ser Arg Ala Ser Glu Ala Ser Gly Ser Leu Leu Leu Arg Phe Phe Leu
 35 40 45
 Gln Met Gly Leu Gly Arg Cys Arg Phe Cys Phe Ser Pro Trp Leu Pro
 50 55 60
 Val Arg Pro Gln Pro Ser Gly Cys Asp Ile Ile Glu Ser Ala Val Ser
 65 70 75 80
 Pro Leu Val Gly Asp Trp Gly Ser Val Phe Ser His Leu Tyr Leu Leu
 85 90 95

<210> 5861
 <211> 1951
 <212> DNA
 <213> Homo sapiens

<400> 5861
 ncaattgcag ctttctatgg cggcaagtcc attctcatca cggggggccac aggcttttctg
 60
 ggcaaaagtgc tgatggagaa gctgttttgc accagcccag acctgaaagt catttatcat
 120
 cttgtgaggg ccaaggctgg ccagacactg cagcagaggg ttttccagat cctagacagt
 180
 aagctatttg agaaaagtcaa agaagtttgt ccaaatgtgc atgagaagat cagagctatt
 240
 tatgcagatc tcaatcagaa tgacttttgc atcagcaagg aggacatgca ggagcttttc
 300
 tcctgtacaa acataatatt tcaactgtgca gccactgtac gctttgacga cactctcaga
 360

catgctgtgc aacttaacgt cactgccacc cggcagctct tgcctatggc tagtcagatg
420 ccaaagctgg aagcctttat acatatctct actgcctatt caaattgtaa cctgaagcac
480 atcgatgaag ttatctatcc gtgccctgtg gagcCaaaaa aaaaaatcat tgattccctt
540 gagtggcttag acgatgctat tattgacgag attacaccca agctgatcag agattggccc
600 aatatttata cctacaccaa ggccctggga gaaatgggtg tgcagcaaga gagcaggaac
660 ctgaacattg ccatcataag gccctccatt gtgggagcaa ctggcgagga gcccttccca
720 gggtggggtg ataataataa tggacctaata ggaatcatta ttgcgactgg gaaagggttt
780 ctteggggcca taaaagctac tccaatggct tgggcagacg taattccagt tgatacagtc
840 gtcaatctca tgctagctgt aggatgggtat actgcagttc acagacctaa gtcaacatta
900 gtctaccaca ttacatctgg taacatgaat ccttgcaatt ggcacaaaaa gggagtccaa
960 gtcttgccaa cctttgaaaa aatcccattt gagagacctt tcaggaggcc aaatgctaata
1020 tttaccagca acagcttcaac atcacagtac tggaaatgcgg tcagccacgg ggcctcgcc
1080 attatctatg actgctatct gcggctcact ggaaggaagc ccaggatgac aaagctcatg
1140 aatcggtctt taagaactgt ttccatgttg gagtatttca tcaaccggag ttgggaatgg
1200 agcacgtaca atacagaaat gctgatgtct gagctgagtc ctgaagacca gagagtattc
1260 aactttgacg tgcgccagtt gaactgggtg gaatacattg aaaattatgt tttgggagtt
1320 aaaaaatact tattgaaaga ggatatggct gggatcccaa aagcaagca acgcttaaaa
1380 aggcctccgaa atattcacta cctctttaat actgcctctc tccttatcgc ctggcgccct
1440 ctcatgtcaa gatctcagat ggctcggaat gtctgggtct tcattgtgaag ctctgtttat
1500 aaattcctct cctactttag agcatccagc acgctcaaa ttaagagca tttagccatc
1560 gccttttata tggaaacctc cagataacct taaaacagca aactgtgatt ctcaagatta
1620 gaaagtaaca aggaatatgc ccaaactgtc aaatgtcacc tgttatgtat tcgtccctat
1680 tccctaaacta tgtattttta tticagttag agaaggaaa ttgtaaacta gcccatagtc
1740 acctatattt tagggaaaaa aatccaaatt gtttcctaac attctatttt atgcccttgc
1800 gtattaaacg tgaagttact cccacttttc tatatttagt ttttcccttc tctctgagat
1860 gattcattta aactcagtaa atatggaaa atgcatggca gaagctgaaa tgagctcaag
1920 cagtactaac cttggaacca ttctgggtac c
1951

<210> 5862

<211> 514

<212> PRT

<213> Homo sapiens

<400> 5862

```

Xaa Ile Ala Ala Phe Tyr Gly Gly Lys Ser Ile Leu Ile Thr Gly Ala
 1           5           10           15
Thr Gly Phe Leu Gly Lys Val Leu Met Glu Lys Leu Phe Arg Thr Ser
 20           25           30
Pro Asp Leu Lys Val Ile Tyr Ile Leu Val Arg Pro Lys Ala Gly Gln
 35           40           45
Thr Leu Gln Gln Arg Val Phe Gln Ile Leu Asp Ser Lys Leu Phe Glu
 50           55           60
Lys Val Lys Glu Val Cys Pro Asn Val His Glu Lys Ile Arg Ala Ile
 65           70           75           80
Tyr Ala Asp Leu Asn Gln Asn Asp Phe Ala Ile Ser Lys Glu Asp Met
 85           90           95
Gln Glu Leu Leu Ser Cys Thr Asn Ile Ile Phe His Cys Ala Ala Thr
100           105           110
Val Arg Phe Asp Asp Thr Leu Arg His Ala Val Gln Leu Asn Val Thr
115           120           125
Ala Thr Arg Gln Leu Leu Met Ala Ser Gln Met Pro Lys Leu Glu
130           135           140
Ala Phe Ile His Ile Ser Thr Ala Tyr Ser Asn Cys Asn Leu Lys His
145           150           155           160
Ile Asp Glu Val Ile Tyr Pro Cys Pro Val Glu Pro Lys Lys Lys Ile
165           170           175
Ile Asp Ser Leu Glu Trp Leu Asp Asp Ala Ile Ile Asp Glu Ile Thr
180           185           190
Pro Lys Leu Ile Arg Asp Trp Pro Asn Ile Tyr Thr Tyr Thr Lys Ala
195           200           205
Leu Gly Glu Met Val Val Gln Gln Glu Ser Arg Asn Leu Asn Ile Ala
210           215           220
Ile Ile Arg Pro Ser Ile Val Gly Ala Thr Trp Gln Glu Pro Phe Pro
225           230           235           240
Gly Trp Val Asp Asn Ile Asn Gly Pro Asn Gly Ile Ile Ile Ala Thr
245           250           255
Gly Lys Gly Phe Leu Arg Ala Ile Lys Ala Thr Pro Met Ala Val Ala
260           265           270
Asp Val Ile Pro Val Asp Thr Val Val Asn Leu Met Leu Ala Val Gly
275           280           285
Trp Tyr Thr Ala Val His Arg Pro Lys Ser Thr Leu Val Tyr His Ile
290           295           300
Thr Ser Gly Asn Met Asn Pro Cys Asn Trp His Lys Met Gly Val Gln
305           310           315           320
Val Leu Ala Thr Phe Glu Lys Ile Pro Phe Glu Arg Pro Phe Arg Arg
325           330           335
Pro Asn Ala Asn Phe Thr Ser Asn Ser Phe Thr Ser Gln Tyr Trp Asn
340           345           350
Ala Val Ser His Arg Ala Pro Ala Ile Ile Tyr Asp Cys Tyr Leu Arg
355           360           365
Leu Thr Gly Arg Lys Pro Arg Met Thr Lys Leu Met Asn Arg Leu Leu

```

```

      370              375              380
Arg Thr Val Ser Met Leu Glu Tyr Phe Ile Asn Arg Ser Trp Glu Trp
385              390              395              400
Ser Thr Tyr Asn Thr Glu Met Leu Met Ser Glu Leu Ser Pro Glu Asp
              405              410              415
Gln Arg Val Phe Asn Phe Asp Val Arg Gln Leu Asn Trp Leu Glu Tyr
              420              425              430
Ile Glu Asn Tyr Val Leu Gly Val Lys Lys Tyr Leu Leu Lys Glu Asp
              435              440              445
Met Ala Gly Ile Pro Lys Ala Lys Gln Arg Leu Lys Arg Leu Arg Asn
              450              455              460
Ile His Tyr Leu Phe Asn Thr Ala Leu Phe Leu Ile Ala Trp Arg Leu
465              470              475              480
Leu Ile Ala Arg Ser Gln Met Ala Arg Asn Val Trp Phe Phe Ile Val
              485              490              495
Ser Phe Cys Tyr Lys Phe Leu Ser Tyr Phe Arg Ala Ser Ser Thr Leu
              500              505              510
Lys Val

```

<210> 5863

<211> 438

<212> DNA

<213> Homo sapiens

<400> 5863

```

acgcgtagggt tgtagcttgc tgtaataatg tccctggcga ggtaagattg ctgcagccaa
60
ggggtgttag aggaagatcc ttaaatactc ttcttggaa agaatltggg tctctaagca
120
agaagtgcga gtcttaacat tcaactgttg tgactgattt atagaaaaag gggctggatt
180
ctggtagcgg ggggagccca ggggtgaacac tgaggttcta cctgttcta gtggttgctt
240
tgattgatac tcagccatga aagggaacata gctcagatac tgacaaaaca gctttgtatt
300
tgagtgtgtt tgtccaactg gcaaggaaca gtctggggac aaacagtgcc ttatttggag
360
ttgtctattc ttctcccca tggagtgtacc tcagataacc tttcccagct tggaaagacc
420
tgaatcagat ttgtaca
438

```

<210> 5864

<211> 104

<212> PRT

<213> Homo sapiens

<400> 5864

```

Met Gly Glu Lys Asn Lys Gln Leu Gln Ile Arg His Cys Leu Ser Pro
1          5          10          15
Asp Cys Ser Leu Pro Val Gly Gln Thr His Ser Asn Thr Lys Leu Phe
20          25          30
Cys Gln Tyr Leu Ser Tyr Val Pro Phe Met Ala Glu Tyr Gln Ser Lys

```

```

      35              40              45
Gln Pro Leu Glu Gln Gly Arg Thr Ser Val Phe Thr Leu Gly Ser Pro
      50              55              60
Gly Tyr Gln Asn Pro Ala Pro Phe Ser Ile Asn Gln Ser Gln Thr Val
      65              70              75              80
Asn Val Lys Thr Gly Thr Ser Cys Leu Glu Thr Gln Ile Leu Phe Gln
      85              90              95
Glu Glu Tyr Leu Arg Ile Phe Leu
      100

```

<210> 5865

<211> 1229

<212> DNA

<213> Homo sapiens

<400> 5865

```

nncccgaaa caggtgtggc ccggggcata gacttccacc atgtgtctgc tgtgctcaac
60
tttgatcttc ccccaacccc tgaggcctac atccatcgag ctggcaggac agcacgcgct
120
aacaacccag gcatagtctt aacctttgtg ctccccacgg agcagttcca cttaggcaag
180
attgaggagc ttctcgtgga gagaacaggg gccccattct gctcccctac cagttccgga
240
tggaggagat cgagggtctt cgctatcgct gcaggtgtcc acccccagga tgccatgcgc
300
tcagtgacta agcaggccat tcgggaggca agattgaagg agatcaagga agagcttctg
360
cattctgaga agcttaagac atactttgaa gacaacccta gggacctcca gctgctcggg
420
catgacctac ctttgcaccc cgcagtgggt aagccccacc tgggccatgt tctgactac
480
ctggttccct ctgctctccg tggcctggta cgccctcaca agaagcggaa gaagctgtct
540
tcctcttgta ggaaggccaa gagagcaaag tccagaacc cactgcgcag ctccaagcac
600
aaaggaaaga aattcagacc cacagccaag ccctctctgag gttgttgggg ctctctggag
660
ctgagcacat tgtggagcac aggettacac ccttcgtgga caggcgaggc tctggtgctt
720
actgcacagc ctgaacagac agttctgggg ccggcagtcg tgggcccttt agtcccttgg
780
cactccaag ctggcatctt gccctctgac aacagaataa aaatttttag tgcctcagtt
840
tgtgcctcca gcatatgaaa aggactatct gaatcccaaa aacatcagga gtcgggaaac
900
ttcgggaagc agctgtgcct ggctctgtgg ctgcatcgag tgcttcactt ggccagcaga
960
ggtcagctgt gccagctgc cccagccatg agaagagaag cctgcccttg ctggcaggtg
1020
gctatggccg gccagagcc ttectgcccc gctcctgcag ccctgtctgc tgggatcagg
1080
ctgggagatg ggccttcctg accgcagccc ttectctccc cgagcacacg cacatgtaga
1140

```

ttcgggggga agctgcctgc tcttccttag aggagccggg gcagctatct gctggtccct
 1200
 ttctgaacaa ctgttgatgt gtgaaaaaa
 1229

<210> 5866
 <211> 212
 <212> PRT
 <213> Homo sapiens

<400> 5866
 Xaa Pro Glu Thr Gly Val Ala Arg Gly Ile Asp Phe His His Val Ser
 1 5 10 15
 Ala Val Leu Asn Phe Asp Leu Pro Pro Thr Pro Glu Ala Tyr Ile His
 20 25 30
 Arg Ala Gly Arg Thr Ala Arg Ala Asn Asn Pro Gly Ile Val Leu Thr
 35 40 45
 Phe Val Leu Pro Thr Glu Gln Phe His Leu Gly Lys Ile Glu Glu Leu
 50 55 60
 Leu Val Glu Arg Thr Gly Ala Pro Phe Cys Ser Pro Thr Ser Ser Gly
 65 70 75 80
 Trp Arg Arg Ser Arg Ala Ser Ala Ile Ala Ala Gly Val His Pro Gln
 85 90 95
 Asp Ala Met Arg Ser Val Thr Lys Gln Ala Ile Arg Glu Ala Arg Leu
 100 105 110
 Lys Glu Ile Lys Glu Glu Leu Leu His Ser Glu Lys Leu Lys Thr Tyr
 115 120 125
 Phe Glu Asp Asn Pro Arg Asp Leu Gln Leu Leu Arg His Asp Leu Pro
 130 135 140
 Leu His Pro Ala Val Val Lys Pro His Leu Gly His Val Pro Asp Tyr
 145 150 155 160
 Leu Val Pro Pro Ala Leu Arg Gly Leu Val Arg Pro His Lys Lys Arg
 165 170 175
 Lys Lys Leu Ser Ser Ser Cys Arg Lys Ala Lys Arg Ala Lys Ser Gln
 180 185 190
 Asn Pro Leu Arg Ser Phe Lys His Lys Gly Lys Lys Phe Arg Pro Thr
 195 200 205
 Ala Lys Pro Ser
 210

<210> 5867
 <211> 1882
 <212> DNA
 <213> Homo sapiens

<400> 5867
 tctatcgtgt gtaccagaga tcttcctgcc atctgaggat gagtgtgggg acgtcctcgt
 60
 catgagaaag aactcatccc catcctccat taccacttat gagacctgcc agacctacga
 120
 gcgtccatt gccttcactg cccgttcacg gaagctcttg atcaacttca agacaagcga
 180
 ggccaacagc gcccggtggct tccagattcc ctatgttacc tatgatgagg actatgagca
 240

gctggtagaa gacattgtgc gagatggccg gctctatgcc tctgaaaacc accaggagat
300
tttaaaggac aagaagctca tcaaggccctt ctttgagggtg ctageccacc cccagaacta
360
cttcaagtac acagagaaac acaaggagat gctgccaaaa tccttcataca agctgtctccg
420
ctccaaagtt tccagcttcc tgaggcccta caaatagtaa ccctaggctc agagacccaa
480
ttttttaagc cccagactc cttagccctc agagccggca gccccctacc ctcagacaag
540
gaactctctc ctctcttttt ggagggaata aaaaatatca ctacacaaac caggcactct
600
ccctttctgt ctttctagtt tcctttcctt gtctctctct gcttgcctct ctactgttcc
660
cccttttcta acacactacc tagaaaagcc attcagtact ggctctatgc cccgtgagat
720
gtaagaagaa agtacagccc cttccactgc ccattttacc agctcacatt cccgacccca
780
tcagcttgga aggggtgctag agggcccatca aggaagtggg tctggtggga aacggggagg
840
ggaaaagaag gcttctgcca ttatagggtt gtgccttgct agtcaggggg caaaatgtcc
900
cctggctctg ctccctaggg tgattctaac agcccagggt cctgccaaag aagcctttga
960
tttaccgctt taatgccagc accagtcctc tggggcacat ggtttgagct ctggacttcc
1020
cacatggcca gctttcttgt ctatacagat cctctcttcc tttccctacg tctgctggg
1080
gtctactcca taagggttta caaatggccc acaacactga gttagtggac accggctaaa
1140
tgagggaagag cagcaggcat tgtcatgggt aatgccccgc tgtagctccc tgagagaaa
1200
actgtaactc tgcaggacag aaacaaggtt ttaaagcatt gccaaaaaa agaaaacaga
1260
aagaaaaaat gtatcatcta aaggtctaga cacagaacaa ttggaagtca acttcaaac
1320
ctaatacctt ttcttgtctt ccttggccca gccacotect cagcccccag tgatgctccc
1380
tggggggagc ctactccctt tgcctacatgt tgccttaaa catggttatt gacctgaagc
1440
cagcctaggc cttgccctac agttgttttt cccttgtagc cccagctggc ttgtgggctt
1500
caccaaaagag gaccccactc tgaagccagc ctggagccac ctacctctgg cctcaggctg
1560
tgggcagcaa aaggaatgtg tgtgcacttg gcgagcctcc tgcccaccct gtccacacct
1620
aataagtga atcattttga gtctttctat gttgtctaga cggaggggtt tttgtttctt
1680
gggtttgttt tttgtttttg tttcttcttc ctctattagc aaaaccctat ttatagctgc
1740
ccaagagaaa agagtgtatg ttggagtggt aagaaaatcg gttttgaatc tcatgaacct
1800
tgagtgcctg agcatctgat ctgtctctat gccaccacg gccacctaga gcccttggt
1860

gtggtaatca catgggtaat tg
1882

<210> 5868

<211> 131

<212> PRT

<213> Homo sapiens

<400> 5868

```
Met Arg Lys Asn Ser Ser Pro Ser Ser Ile Thr Thr Tyr Glu Thr Cys
1      5      10      15
Gln Thr Tyr Glu Arg Pro Ile Ala Phe Thr Ala Arg Ser Arg Lys Leu
20      25      30
Trp Ile Asn Phe Lys Thr Ser Glu Ala Asn Ser Ala Arg Gly Phe Gln
35      40      45
Ile Pro Tyr Val Thr Tyr Asp Glu Asp Tyr Glu Gln Leu Val Glu Asp
50      55      60
Ile Val Arg Asp Gly Arg Leu Tyr Ala Ser Glu Asn His Gln Glu Ile
65      70      75      80
Leu Lys Asp Lys Lys Leu Ile Lys Ala Phe Phe Glu Val Leu Ala His
85      90      95
Pro Gln Asn Tyr Phe Lys Tyr Thr Glu Lys His Lys Glu Met Leu Pro
100     105     110
Lys Ser Phe Ile Lys Leu Leu Arg Ser Lys Val Ser Ser Phe Leu Arg
115     120     125
Pro Tyr Lys
130
```

<210> 5869

<211> 910

<212> DNA

<213> Homo sapiens

<400> 5869

```
tgatcagttac aaagcacaag aatttccct catctgctat aggaggtttc tctctctcct
60
tctaggggct cacaggccac aggctaacct ggtggctcct ggcagccatc ttgggactga
120
aagaaaactca cctgaagaa gctcgcccat tagtgactgc aatttctggt ttttagagttt
180
tggtatttcg tgatattcaa atactaaaat acatgagttt ttattgggtg aattccatca
240
ttatttcatt attcaacat ttaaaaaatt gcaagtctat gactcaatga ttccacagaa
300
aagacaaacg gatgggttgg ctccaagtct agactcgctc tcagagtctg tcttctccag
360
agaatcatcg cagatcacia caggcagcct tctaattatg catcacgaag ctctaccaca
420
cagggttaatt cccactctgg ttcaaacagg ttgcatggt cgtcacatcc tggggagaca
480
cgtatttggg tctgaggcaa accttttttag ttgtgccata gaccaggttt ttccgaacga
540
aggctgtcct ccatattcct gccaaagaac aaactcatca ctccagtacc aaatccagtc
600
```

agtgggtgagg atgaagtgtg gaggtttggt gacagaggag gccgtggaga ggcggcgagc
 660
 ctgggtagca cogtaagtca tggcggttaa gttcagacaa tgagagtgaagggtactggc
 720
 tgactcagag cacaggatcc tttctatttt gggattgcaa tatgcctctt caataagttc
 780
 catgtgtgcc aaatccctccc atttgcctct atccaagaat tgccatcgat acggcaaatg
 840
 gaaatgaact ctatggcact tatcttgaaa gctacaactt ttccggatat ggtacaacaa
 900
 gatctgatca
 910

<210> 5870

<211> 129

<212> PRT

<213> Homo sapiens

<400> 5870

Met Ile Pro Gln Lys Arg Gln Thr Asp Gly Leu Ala Ser Ser Leu Asp
 1 5 10 15
 Ser Pro Ser Glu Ser Val Phe Ser Arg Glu Ser Ser Gln Ile Thr Thr
 20 25 30
 Gly Ser Leu Ile Met His His Glu Ala Ser Thr His Arg Val Ile
 35 40 45
 Pro Thr Leu Val Gln Thr Gly Leu His Gly Arg His Ile Leu Gly Arg
 50 55 60
 His Val Phe Gly Ser Ala Ala Asn Leu Phe Ser Cys Ala Ile Asp Gln
 65 70 75 80
 Val Phe Pro Asn Glu Gly Cys Leu Pro Tyr Ser Cys Gln Glu Pro Asn
 85 90 95
 Ser Ser Leu Gln Tyr Gln Ile Gln Ser Val Val Arg Met Lys Cys Gly
 100 105 110
 Gly Leu Val Thr Glu Glu Ala Val Glu Arg Arg Arg Ala Trp Val Ala
 115 120 125
 Pro

<210> 5871

<211> 2217

<212> DNA

<213> Homo sapiens

<400> 5871

ntaaatctct ctctaaacac tgcctnagct gcattccata gattgtggta ctttttgtct
 60
 ttgtttctcat tgggtttcaa taacttggtt atttctgtct taattgcatt gtttaccagg
 120
 tagtcattca ggagcaagtt gttcagtttc catatagatt ctgtgtgttt tagtcttgct
 180
 taaattatct ctactacttc ttgcacccc ttgtctagtt ttctcagtc cgtagggttt
 240
 attaaataat aattggactc tagtaatttt tttaaatgag agagaggga actatatgtg
 300

aaattggatt gggacattta tttacttaa acagaagttt gcttatgaca cataatctag
360
atgggatata tcttatctat agtgtatcca cctgctgtaa gtagatactg tatttgtata
420
gccattattt tgctgtaagt actttatcat ttaataaaa ttgattaaga ggaaaaaaaa
480
agaatggaat tctctttgat gcaactttt cccccagac cagaatccgt agaagctagc
540
cctgtggtag ttgagaaatc caacagttat cccaccagc tatataccag cagctcacat
600
cattcacaca gttacattgg ttgcccctat gcggaccata attatggtgc tcgtcctcct
660
ccgacacctc cggcttcccc tcctccatca gtccttatta gcaaaaatga agtaggcata
720
ttaccactc ctaattttga tgaaacttcc agtgctacta caatcagcac atctgaggat
780
ggaagtattg gtactgatgt aaccaggtgc atatgtggtt ttacacatga tgatggatac
840
atgatctgtt gtgacaaatg cagcgtttgg caacatatg actgcattgg gattgatagg
900
cagcatattc ctgatacata tctatgtgaa cgtgtgcagc ctaggaaatt ggataaagag
960
agggcagtg tactacaacg ccggaaaagg gaaaatatgt cagatggtag taccagtgca
1020
actgagagtg gtgatgaggt tcctgtggaa ttatatactg catttcacga tactccaaca
1080
tcaattactt taactgtctc aagagtctcc aaagttaatg ataaaagaag gaaaaaaagc
1140
ggggagaaaag aacaacacat ttcaaaatgt aaaaaggcat ttcgtgaagg atctaggaag
1200
tcattcaagag ttaagggttc agctccagag attgatcctt catctgatgg ttcaattttt
1260
ggatggggaga caaagatcaa agcatggatg gatcgatatg aagaagcaaa taacaaccag
1320
tacagtggag gtgttcagag ggaggcacia agaatagcct tgagattagg caatggaaat
1380
gacaaaaaag agatgaataa atccgatttg aataccaaca atttgcctt caaacctcct
1440
gtagagagcc atatacaaaa gaataagaaa attcttaaat ctgcaaaaga ttgctcct
1500
gatgcactta tcattgaata cagaggggaag tttatgctga gagaacagtt tgaagcaaat
1560
gggtattttt ttaaaagacc ataccctttt gtgttattct actctaaatt tcattgggcta
1620
gaaatgtgtg ttgatgcaag gacttttggg aatgaggtgc gattcatcag gcggtcttgt
1680
acaccaaatg cagaggtgag gcatgaaatt caagatggaa ccatacatct ttatatttat
1740
tctatacaca gtattccaaa gggaactgaa attactattg cctttgattt tgactatgga
1800
aattgtaagt acaaggtgga ctgtgcatgc ctcaaagaaa acccagagtg cctgttcta
1860
aaacgtagtt ctgaatccat ggaaaatata aatagtgggt atgagaccag acggaaaaaa
1920

ggaaaaaaag acaaagatat ttcaaaagaa aaagatacac aaaatcagaa tattactttg
 1980
 gattgtgaag gaacgaccaa caaaatgaag agccccagaaa ctaaacaag aaagctttct
 2040
 ccaactgagac tatcagtatc aaataatcag gaaccagatt ttattgatga tatagaagaa
 2100
 aaaaacctcta ttagtaatga agtagaaatg gaatcagagg agcagattgc agaaagaaaa
 2160
 aggaagatga caagagaaga aagaaaaatg gaagcaattt tgcaagcttt tgccggc
 2217

<210> 5872

<211> 578

<212> PRT

<213> Homo sapiens

<400> 5872

Met	Glu	Phe	Ser	Leu	Met	Gln	Leu	Phe	Pro	Pro	Arg	Pro	Glu	Ser	Val
1				5					10					15	
Glu	Ala	Ser	Pro	Val	Val	Val	Glu	Lys	Ser	Asn	Ser	Tyr	Pro	His	Gln
			20					25					30		
Leu	Tyr	Thr	Ser	Ser	Ser	His	His	Ser	His	Ser	Tyr	Ile	Gly	Leu	Pro
			35				40					45			
Tyr	Ala	Asp	His	Asn	Tyr	Gly	Ala	Arg	Pro	Pro	Pro	Thr	Pro	Pro	Ala
			50				55				60				
Ser	Pro	Pro	Pro	Ser	Val	Leu	Ile	Ser	Lys	Asn	Glu	Val	Gly	Ile	Phe
65					70					75				80	
Thr	Thr	Pro	Asn	Phe	Asp	Glu	Thr	Ser	Ser	Ala	Thr	Thr	Ile	Ser	Thr
				85					90					95	
Ser	Glu	Asp	Gly	Ser	Tyr	Gly	Thr	Asp	Val	Thr	Arg	Cys	Ile	Cys	Gly
			100					105					110		
Phe	Thr	His	Asp	Asp	Gly	Tyr	Met	Ile	Cys	Cys	Asp	Lys	Cys	Ser	Val
			115				120					125			
Trp	Gln	His	Ile	Asp	Cys	Met	Gly	Ile	Asp	Arg	Gln	His	Ile	Pro	Asp
						135					140				
Thr	Tyr	Leu	Cys	Glu	Arg	Cys	Gln	Pro	Arg	Asn	Leu	Asp	Lys	Glu	Arg
145					150					155				160	
Ala	Val	Leu	Leu	Gln	Arg	Arg	Lys	Arg	Glu	Asn	Met	Ser	Asp	Gly	Asp
				165					170					175	
Thr	Ser	Ala	Thr	Glu	Ser	Gly	Asp	Glu	Val	Pro	Val	Glu	Leu	Tyr	Thr
			180				185						190		
Ala	Phe	Gln	His	Thr	Pro	Thr	Ser	Ile	Thr	Leu	Thr	Ala	Ser	Arg	Val
			195				200					205			
Ser	Lys	Val	Asn	Asp	Lys	Arg	Arg	Lys	Lys	Ser	Gly	Glu	Lys	Glu	Gln
			210				215				220				
His	Ile	Ser	Lys	Cys	Lys	Lys	Ala	Phe	Arg	Glu	Gly	Ser	Arg	Lys	Ser
225					230					235				240	
Ser	Arg	Val	Lys	Gly	Ser	Ala	Pro	Glu	Ile	Asp	Pro	Ser	Ser	Asp	Gly
				245					250					255	
Ser	Asn	Phe	Gly	Trp	Glu	Thr	Lys	Ile	Lys	Ala	Trp	Met	Asp	Arg	Tyr
			260				265						270		
Glu	Glu	Ala	Asn	Asn	Asn	Gln	Tyr	Ser	Glu	Gly	Val	Gln	Arg	Glu	Ala
			275				280					285			
Gln	Arg	Ile	Ala	Leu	Arg	Leu	Gly	Asn	Gly	Asn	Asp	Lys	Lys	Glu	Met

```

      290              295              300
Asn Lys Ser Asp Leu Asn Thr Asn Asn Leu Leu Phe Lys Pro Pro Val
305              310              315              320
Glu Ser His Ile Gln Lys Asn Lys Lys Ile Leu Lys Ser Ala Lys Asp
      325              330              335
Leu Pro Pro Asp Ala Leu Ile Ile Glu Tyr Arg Gly Lys Phe Met Leu
      340              345              350
Arg Glu Gln Phe Glu Ala Asn Gly Tyr Phe Phe Lys Arg Pro Tyr Pro
      355              360              365
Phe Val Leu Phe Phe Tyr Ser Lys Phe His Gly Leu Glu Met Cys Val Asp
      370              375              380
Ala Arg Thr Phe Gly Asn Glu Ala Arg Phe Ile Arg Arg Ser Cys Thr
385              390              395              400
Pro Asn Ala Glu Val Arg His Glu Ile Gln Asp Gly Thr Ile His Leu
      405              410              415
Tyr Ile Tyr Ser Ile His Ser Ile Pro Lys Gly Thr Glu Ile Thr Ile
      420              425              430
Ala Phe Asp Phe Asp Tyr Gly Asn Cys Lys Tyr Lys Val Asp Cys Ala
      435              440              445
Cys Leu Lys Glu Asn Pro Glu Cys Pro Val Leu Lys Arg Ser Ser Glu
      450              455              460
Ser Met Glu Asn Ile Asn Ser Gly Tyr Glu Thr Arg Arg Lys Lys Gly
465              470              475              480
Lys Lys Asp Lys Asp Ile Ser Lys Glu Lys Asp Thr Gln Asn Gln Asn
      485              490              495
Ile Thr Leu Asp Cys Glu Gly Thr Thr Asn Lys Met Lys Ser Pro Glu
      500              505              510
Thr Lys Gln Arg Lys Leu Ser Pro Leu Arg Leu Ser Val Ser Asn Asn
      515              520              525
Gln Glu Pro Asp Phe Ile Asp Asp Ile Glu Glu Lys Thr Pro Ile Ser
      530              535              540
Asn Glu Val Glu Met Glu Ser Glu Glu Gln Ile Ala Glu Arg Lys Arg
545              550              555              560
Lys Met Thr Arg Glu Glu Arg Lys Met Glu Ala Ile Leu Gln Ala Phe
      565              570              575
Ala Gly

<210> 5873
<211> 3463
<212> DNA
<213> Homo sapiens

<400> 5873
nccgcagtcct tcttcgggt gatggcgcc gggtgcccc gatgtagccc tggcgcaagg
60
atctcttctt tttccacct cgccttcgc ggattccag cttgagaac acctcttgc
120
cccgatcagc caaagaggaa agtgaccttc caaggctgg gagatgagga ggaatgaggat
180
gaaatcattg tccccaagaa gaagctgggt gacctctgc ctgggtcagg gggctcctgg
240
agccgcttta aaggcaaca ctcttggat agcgatgagg aggaggatga tgatgatggg
300

```

gggtccagca aatatgacat cttggcctca gaggatgtag aaggtcagga ggcagccaca
360
ctccccagcg aggggggtgt tcggatcaca ccccttaacc tgcaggagga gatggaggaa
420
ggccactttg atgccgatgg caactacttc ctgaaccggg atgctcagat ccgagacagc
480
tggctggaca acattgactg ggtgaagatc cgggagcggc cacctggcca gccccaggcc
540
tcagactcgg aggaggagga cagcttgggc cagacctcaa tgagtgccta agccctcttg
600
gagggacttt tggagctcct attgcctaga gagacagtgg ctggggcact gaggcgctctg
660
ggggcccagc gaggaggcaa agggagaaaagg gggcctgggc aaccagttc ccctcagcgc
720
ctggaccggc tctccgggtt gggcgaccag atggtggccc ggggcaacct tgggtgtgtac
780
caggaaacaa ggggaacggtt ggcctatgct ctgaagggtt tgggggtgtca gaccctagga
840
ccccacaatc ccacaccccc accctccctg gacatgttctg ctgaggagtt ggcggaggag
900
gaactggaga ccccaacccc taccagagga ggagaagcag agtcgcgggg agatggctctg
960
gtggatgtga tgtgggaata taagtgggag aacacggggg atgccagact gtatggggccc
1020
ttcaccagcg ccagatgca gacctgggtg agtgaaggct acttcccaga cgggttttat
1080
tgccggaagc tggacccccc tgggtggtcag ttctacaact ccaaacgcgt tgactttgac
1140
ctctacacct gagcctgctg gggggccagt ttgggtgggc cttctttcct ggactttgtg
1200
gaggaggcac caagtgtctc aggcagcgag gaaattggag gccatttttc agtcaatttc
1260
cctttcccaa taaaagcctt tagttgtgta ctggggcctt ggctgtgctg atggccagaa
1320
gccagggggc ttctccacag tccctttgga ctgtctctgg tccctgagta ctcccagaa
1380
gatcctcttt ggaggtgcct gtcaggtatc ctgtggcctc cctgcctgga ctctgcttgc
1440
cgtgtaaaac cccccaactg cgtgctctg tgctcctctc ccagggtttct tgttcgattc
1500
ctcttaggtc tttggctttc aggcctcag attctttatc cttgtagcca ccagaggaca
1560
gagcccccaga agtggatgtt ttaggcccag aaggaccagg gcacgcagaa gacattggga
1620
ccctgttggg ggtgagcatg gaacctctt actctcgctt caccctctca agctccttag
1680
atgctgggca gaagtgggat gagtggccca agaccgagat ccctaagggt ctgagagcca
1740
gtgtctctcc taatctggct ttcctctate cttgcogtgc tccccacaga ccttcagtga
1800
agtgcaaaact cagtggccaa gtgtgggcca agtgtgcatt gtactggcac agagaggggc
1860
agtgactcac tggagatcac aggaatcaaa gggctggccc agaccagtg ggctcctttc
1920

ccagaccttt cttggcacia agccttttget gcctggcctt ggaggccctg cggcctacat
1980
tcctctggacc ccactatgtg cctggcacag ggctagtgc ttgaggaaac tgaggtagct
2040
gggttggtcc ccttcagga attcagagtc tgggtggcagg ggcattgggaa atagacagat
2100
gtaattctat agcctggcgc ctggcaccct ccacctccac gcccaccag cattgcctta
2160
cgctccctt gcccacgtt agatgggttc ttcgggtttt gcaactctggc tgcccccttg
2220
agtctcctgg ggagctgtaa tatctctttg gagattcaga ttgagctgggt ctaggtttgtg
2280
gcccaggcat tgggcatttt ggaagccccc aggtgttttc agcttgacgc caggccgagg
2340
gagagccctt gaggcagatc cccatgggtt aggcacacct agcggggagg gtggctcctg
2400
gaccccaacc tgggttgaga gctgagcatg tgtgtgggtt tagtggggtc tgttagttat
2460
gggggtctgg gcactggagc tgcaggacac ttgggatccc aggtcagaaa gggccagatg
2520
agcaactagg aaagacttgg gggccagggc ggagtgggtt cacctgacac tcttgtgagg
2580
cccttcttag tgcctgctca caccggaatt tcattcactc caagaagcca tcagggttaa
2640
gataccctcc tttaaacgtc actaagaaag aagaggcctg ccggtgacac agtaagatgc
2700
cattgatcta aagatgcgtc ttgatttcag aaaggtccgg aagtggaaag caggtttcag
2760
ggctgctgag gtacagggtt ctctgtagg cccagggtat ggtctcaggg gtgctgagtg
2820
cgtgcgtggg aaatggatgg agcccagggt cgctcctgc cagtgtctc caggcactca
2880
aacctagccc ttctgaagcc gacctcactg gacctcacg cccctcctga aggcgcctca
2940
ctgatgacgg tgggtggaat aacagccccc agagatgtcc aggtttggaa cccaggagc
3000
tgggaaagt ttaccttgcc tggcaaaag gaccgggcgc ctgtgcttca gttcaggatt
3060
tcgtggtggg gagatgaccg tggatggttg aggtggggcc tgagtaatca tggggggccct
3120
tataagggaa ggggagtcac gaggtctcgc gcataagca aggaagcttc tggtgtgtaa
3180
gatggcaaga aggcctgggg ccaggcgatg aggtggcccc tggaggagct ggaanaagca
3240
ttgattctg cccagagcc tccgtggaga aacaaagccg cactgacaag acttcagcct
3300
ggtgaaaacc attttggtact cctgacctct agaactgaac caagccggag acctggacat
3360
gcccagctcc tctgtatgcc aagacctgag aggtgtttct ccaaggatg gatttcaaga
3420
cggagtctcg ctctgtctcc caggctgaag tgcagtggcg cgc
3463

<210> 5874

<211> 341

<212> PRT

<213> Homo sapiens

<400> 5874

```

Met Pro Lys Arg Lys Val Thr Phe Gln Gly Val Gly Asp Glu Glu Asp
 1           5           10           15
Glu Asp Glu Ile Ile Val Pro Lys Lys Lys Leu Val Asp Pro Val Pro
           20           25           30
Gly Ser Gly Gly Pro Gly Ser Arg Phe Lys Gly Lys His Ser Leu Asp
           35           40           45
Ser Asp Glu Glu Asp Asp Asp Asp Gly Gly Ser Ser Lys Tyr Asp
           50           55           60
Ile Leu Ala Ser Glu Asp Val Glu Gly Gln Glu Ala Thr Leu Pro
65           70           75           80
Ser Glu Gly Gly Val Arg Ile Thr Pro Phe Asn Leu Gln Glu Glu Met
           85           90           95
Glu Glu Gly His Phe Asp Ala Asp Gly Asn Tyr Phe Leu Asn Arg Asp
           100          105          110
Ala Gln Ile Arg Asp Ser Trp Leu Asp Asn Ile Asp Trp Val Lys Ile
           115          120          125
Arg Glu Arg Pro Pro Gly Gln Arg Gln Ala Ser Asp Ser Glu Glu Glu
           130          135          140
Asp Ser Leu Gly Gln Thr Ser Met Ser Ala Gln Ala Leu Leu Glu Gly
145          150          155          160
Leu Leu Glu Leu Leu Leu Pro Arg Glu Thr Val Ala Gly Ala Leu Arg
           165          170          175
Arg Leu Gly Ala Arg Gly Gly Gly Lys Gly Arg Lys Gly Pro Gly Gln
           180          185          190
Pro Ser Ser Pro Gln Arg Leu Asp Arg Leu Ser Gly Leu Ala Asp Gln
           195          200          205
Met Val Ala Arg Gly Asn Leu Gly Val Tyr Gln Glu Thr Arg Glu Arg
210          215          220
Leu Ala Met Arg Leu Lys Gly Leu Gly Cys Gln Thr Leu Gly Pro His
225          230          235          240
Asn Pro Thr Pro Pro Pro Ser Leu Asp Met Phe Ala Glu Glu Leu Ala
           245          250          255
Glu Glu Glu Leu Glu Thr Pro Thr Pro Thr Gln Arg Gly Glu Ala Glu
           260          265          270
Ser Arg Gly Asp Gly Leu Val Asp Val Met Trp Glu Tyr Lys Trp Glu
           275          280          285
Asn Thr Gly Asp Ala Glu Leu Tyr Gly Pro Phe Thr Ser Ala Gln Met
           290          295          300
Gln Thr Trp Val Ser Glu Gly Tyr Phe Pro Asp Gly Val Tyr Cys Arg
305          310          315          320
Lys Leu Asp Pro Pro Gly Gly Gln Phe Tyr Asn Ser Lys Arg Ile Asp
           325          330          335
Phe Asp Leu Tyr Thr
           340

```

<210> 5875

<211> 5933

<212> DNA

<213> Homo sapiens

<400> 5875
cttaccatc accttccctgc agcagtgctg ctaaggaga tacatatcca gcctcatctg
60
nctttttctg caacctgccc ttcttcagtg tctgttgaag taagtgcaga tggggtaaat
120
atgtacactt tgtccactcc tgttgtcaca agtggcctca cctacataaa aattcagctt
180
gtaaaagccg aagtagcttc tgctgtctgc cttagactac atcgtccacg ggaagccagc
240
acattaggcc ttccacaaat taaattattg gggctcactg cttttggtac cactctctct
300
gcaacagtta ataatecatt ccttccatct gaagatcagg tatccaaaac aagtattgga
360
tggttacggg tattacatca ttgccttact cacataagtg atctagaagg aatgatggca
420
agtgcagctg cactactgc taatctgctg cagacttctg cggccttatt gatgtcacct
480
tactgtggaa tgcattcacc caacatcgag gttgtgcttg taaagatagg actgcagctc
540
actgaattg gctgaagct catagacatt ctcttgagaa attgtgcagc atcaggcagc
600
gatctacag atttgaatag tcttttactt ttggaagac taaatggact ctcttctgac
660
tctacgatag atattcttta ccagcttgga acaactcagg atcctggatc aaaagacaga
720
attcaggcct tgttaaaatg ggttagtgat tctgcaagag tggctgctat gaagagaagt
780
ggcaggatga actacatgtg tcttaactcc tcaacagtag agtatggctc tctgatgcc
840
tctccttctc atttgactg tgtagcagcc attctgtggc atagtattga gctgcttgta
900
gaatatgact taccagcact cctggacca gagctctttg agttactttt taattggctc
960
atgtctcttc cctgcaatat ggttttgaag aaagctggtg acagtctact ttgctcaatg
1020
tgtcagctac acccaacta tttttctttg ctcatgggct ggaagggaat taccctctct
1080
ccagtgaat gtcatcatag actgtccatg acagatgata gcaaaaagca ggaatcagc
1140
tcactcttaa cagatgactc taaaaatgca caagcacctc tcgcatcattc tgaatcacat
1200
ttggctaccc ttgcttctc ttctcaatct cctgaagcta ttaaacattc actagactca
1260
ggtttgectt ctcttcttgt gaggagtctg gctagtctct gcttagcca catttctagc
1320
tcagaaagca tggccagtc aatagatatt tcccaggaca aactcaggcg ccatcatgtc
1380
ccacaacaat gtaataagat gcctatcaca gcgacctag ttgctctcat tcttaggttt
1440
ttgacagaag ttggcaatag ccatattatg aaagattggc ttggtggctc tgaagtcaat
1500
ccactatgga cagcacttct gtttttatg tgtcactctg ggtccacttc tgggaagccat
1560

aatttaggtg cacaaacagac cagtgcaaga tcagcttctc tttcttcagc tgctacaaca
1620
ggactgacta ctcaacacgc cacagcaatt gagaatgcaa ctgttgcggt cttcttacag
1680
tgcatttcac gccatcctaa taatcaaaag ctgattggcac aggttctcttg tgaactatct
1740
cagacatctc ctcaaaagag gaaccttcca acatctggga acatttcagg gttttacgaa
1800
agattatctt tacagttgat gctggaagat gagaagtga caatgttctc tcagttctca
1860
tgtccactgt acaaaggtag aattaatgct actagccacg tcattccagca tccaatgtat
1920
ggagcaggcc acaaattccg tactcttcat ttgccagtct caacaacatt atcagatggt
1980
cttgacagag tgtcagatac tccaagtatc acagctaaat taattagtga acaaaaagat
2040
gacaaaagaaa agaaaaacca tgaagagaaa gaaaaagtta aagcggaaaa tggatttcaa
2100
gacaattaca gtgtgtgtgt tgccctctggg ctgaagtctc aatctaaagc tgctgtgtca
2160
gctacaccac ctgcccacc atccaggagg gggaggacaa tacctgataa aatagggaagt
2220
acttcaggag cagaggctgc caacaaaata attactgtcc cagtgtttca cctgtttcac
2280
aaactcttgg caggccagcc attgccagct gaaatgacac ttgccagctc ttttaactctc
2340
ctatatgacc gaaaacttcc tcagggttac cgctcaatag atctgactgt taaattggga
2400
tcaagagtta taacagaccc cagttctatca aaaacagatt cttataaaaag actacaccct
2460
gaaaaagatc atggagactt acttgctagc tgtccagaag atgaggctct cactccaggt
2520
gatgaatgca tggatgggat actggatgaa tctttgcttg aaacctgtcc aattcagtc
2580
ccattacaag tttttgcagg aatgggtgga ctggctctta ttgctgaaa actaccatg
2640
ctatatccag aagtaattca acaggtgagt gctccagttg taacatctac cactcaggaa
2700
aagccgaagg atagcgatca gtttgaatgg gtgaccattg aacagtcagg ggagttagtt
2760
tatgaagcac cagaaaactgt tgcggctgaa cctccacctc tcaagtcagc agtacagacc
2820
atgtctccca tacctgccca ttctttggct gcttttggat tattttcttg tcttcggggc
2880
tatgcggaag tgctactgaa agagagaaaa catgccagc gccttctctg attggtattg
2940
ggagtgcagc atgatggaga aggaagtcac attcttcaat ctccatcagc caatgtgctt
3000
ccaacccttc ctttccagct ccttcgtagc ttgttttagc ctacaccttt gacaactgat
3060
gatggtgtac ttctaaggcg gatggcattg gaaattggag ccttacacct cattcttctc
3120
tgtctctctg ctttgagcca ccattcccca cgagttccaa actctagcgt gaatacaact
3180

gagccacagg tgctcaagctc tcataaccct acatcaacag aagaacaaca gttatattgg
3240
gccaaaggga ctggctttgg aacaggctct acagcttctg ggtgggatgt ggaacaagcc
3300
ttaactaagc aaaggctgga agaggaacat gttacctgcc ttctgcaggt tcttgccagt
3360
tacataaatc ccgtcagtag tgcggtaaat ggagaagctc agtcatctca tgagactaga
3420
gggcagaaca gtaatgccct tccttctgta cttctcgagc ttctcagtca gtccctgcctc
3480
atcccagcca tgctcatctta tctacgaaat gattcagttc tggacatggc aagacatgtg
3540
ccactctatc gggcactgct ggaattgctt cgggccattg cttcttgtgc tgccatggtg
3600
cccctattgt tgcccccttc tacagagaaac ggtgaagagg aagaagaaca gtcagaatgt
3660
caaactctct ttggtacatt gttagccaaa atgaagacct gtgttgatac ctataccaac
3720
cgtttaagat ctaaaaggga aaatgttaaa acaggagtaa aaccagatgc gtctgatcaa
3780
gaaccagaag gacttactct ttltgtacca gacatccaaa agactgctga gatagtttat
3840
gcagccacca ccagtttgcg gcgagcaaat caggaaaaaa aactgggtga atactccaag
3900
aaggcgctga tgaaccacaa acctttgtca gtattaaagt cacttgaaga aaaatatgtg
3960
gctgttatga agaaattaca gtttgatacg ttgaaatgg ttcttgaaga tgaagatggg
4020
aaattgggat ttaaagtaaa ttaccactac atgtctcagg tgaataatgc taatgatgcg
4080
aacagtgtctg ccagagctcg ccgccttgcc caggaagctg tgacactttc aacctcactg
4140
cctctgtctt catcctctag tgtgtttgta cgctgtgatg aggagcagct tgatatcatg
4200
aaggttctaa taactgggcc agcggacacc ccttatgcaa atggctgctt tgagtttgat
4260
gtgtattttc ctcaagatta tcccagttca cccctcttg tgaatctaga gacaactggg
4320
ggtcatagcg tgcgattcaa tccaacacct tataatgatg gcaagggttg ttaatgacac
4380
ttaaacacgt ggcattggaag accagaagag aagtggaaac ctacagacct aagctttttg
4440
caagtgttgg tgtctgtcca gtcccttata ttagtagctg agccttattt taatgaaccg
4500
ggatatgaac ggtctagagg cactcccagt ggcacacaga gttctcgaga atatgatgga
4560
aacattcgac aagcaacagt taagtgggca atgctagaac aaatcagaaa cccttcacca
4620
tgttttaaag aggtaataca caaacatttt tacttgaaaa gagttgagat aatggcccaa
4680
tgtgaggagt ggattcggga tatccagcag tacagcagtg ataagcgggt aggcaggact
4740
atgtctcacc atgcagcagc tctcaagcgt cactctgcct agctcccgca agagtgtgctg
4800

aaacttcct gccctgaagg ctggatcct gacactgacg atgccccaga ggtgtgcaga
 4860
 gccacaacag gtgctgagga gactctaag catgatcagg ttaaacccag cagcagcaaa
 4920
 gaactcccca gtgacttcca gttatgagct gcattgatgt ggacttcata gacacaaagg
 4980
 cttcgaagca caagccaaat atgtcaatat ttgtatgtaa gaaactaatt atgtaaatagg
 5040
 taatgaaact gaaactatac tatgccctta aggagatcca gtttaattca aggtgatctt
 5100
 ttattttacct gtacaggagt gtaaacctttt ttgtgctttt atttttcaat tgtgagaacc
 5160
 actgattggt atgttcaaca aatttgtgta tacaagaaa tggataaatc actgcctatat
 5220
 aagggaaact accttaggaa agaattgtta ctgaatgttt attttatttt tttttttttt
 5280
 tactatagag tgaggggttg ttaacaaaga atatatttg gtcattccta caactactat
 5340
 ttaaatgcag caacttttca ctgaatttga tagattttat gtttggccat atcttcatgc
 5400
 tcacatttga tttctgaaga cctcctacat acacttcaat aaaagttaaa tggacataact
 5460
 cctctctttt tgatttactg gtacattttt aaaataataa atctgcccata aaatgcatta
 5520
 tatctggaga cttgcacttg tatggatgaa ttattacat tcaacatatt taattttatg
 5580
 ccttctaatt ctaagatgca gaaaaaataa aatgaacatg attttattct atgccaacat
 5640
 ttgggcctct gaatgtatct gttatttgaa tttaagtatt tgaaaaggaa tggctcaattt
 5700
 gaaagtcatt ctaaaactgat tttttttttc taaagggctc cttttttcct ggactatgtg
 5760
 gttttatgac taaagtcaca tgtatgtatt aaacattgag gctctgtaga ggagagagga
 5820
 tgtacctctc tgggtgctgt acagtacatt ctgtacctgc catacaggct cattttcatg
 5880
 caaattcttc ctagagccaa ataaataaag acttaggtga aaaaaaaaaa aaa
 5933

<210> 5876

<211> 1648

<212> PRT

<213> Homo sapiens

<400> 5876

Leu Thr Ile His Leu Pro Ala Ala Val Leu Leu Lys Glu Ile His Ile
 1 5 10 15
 Gln Pro His Leu Xaa Phe Leu Ala Thr Cys Pro Ser Ser Val Ser Val
 20 25 30
 Glu Val Ser Ala Asp Gly Val Asn Met Leu Pro Leu Ser Thr Pro Val
 35 40 45
 Val Thr Ser Gly Leu Thr Tyr Ile Lys Ile Gln Leu Val Lys Ala Glu
 50 55 60
 Val Ala Ser Ala Val Cys Leu Arg Leu His Arg Pro Arg Asp Ala Ser

65					70					75				80	
Thr	Leu	Gly	Leu	Ser	Gln	Ile	Lys	Leu	Leu	Gly	Leu	Thr	Ala	Phe	Gly
				85					90					95	
Thr	Thr	Ser	Ser	Ala	Thr	Val	Asn	Asn	Pro	Phe	Leu	Pro	Ser	Glu	Asp
			100					105						110	
Gln	Val	Ser	Lys	Thr	Ser	Ile	Gly	Trp	Leu	Arg	Leu	Leu	His	His	Cys
			115				120					125			
Leu	Thr	His	Ile	Ser	Asp	Leu	Glu	Gly	Met	Met	Ala	Ser	Ala	Ala	Ala
	130					135					140				
Pro	Thr	Ala	Asn	Leu	Leu	Gln	Thr	Cys	Ala	Ala	Leu	Leu	Met	Ser	Pro
	145				150				155					160	
Tyr	Cys	Gly	Met	His	Ser	Pro	Asn	Ile	Glu	Val	Val	Leu	Val	Lys	Ile
				165					170					175	
Gly	Leu	Gln	Ser	Thr	Arg	Ile	Gly	Leu	Lys	Leu	Ile	Asp	Ile	Leu	Leu
			180					185					190		
Arg	Asn	Cys	Ala	Ala	Ser	Gly	Ser	Asp	Pro	Thr	Asp	Leu	Asn	Ser	Pro
			195				200					205			
Leu	Leu	Phe	Gly	Arg	Leu	Asn	Gly	Leu	Ser	Ser	Asp	Ser	Thr	Ile	Asp
	210					215					220				
Ile	Leu	Tyr	Gln	Leu	Gly	Thr	Thr	Gln	Asp	Pro	Gly	Thr	Lys	Asp	Arg
	225				230					235				240	
Ile	Gln	Ala	Leu	Leu	Lys	Trp	Val	Ser	Asp	Ser	Ala	Arg	Val	Ala	Ala
				245					250					255	
Met	Lys	Arg	Ser	Gly	Arg	Met	Asn	Tyr	Met	Cys	Pro	Asn	Ser	Ser	Thr
			260				265						270		
Val	Glu	Tyr	Gly	Leu	Leu	Met	Pro	Ser	Pro	Ser	His	Leu	His	Cys	Val
			275				280					285			
Ala	Ala	Ile	Leu	Trp	His	Ser	Tyr	Glu	Leu	Leu	Val	Glu	Tyr	Asp	Leu
	290				295						300				
Pro	Ala	Leu	Leu	Asp	Gln	Glu	Leu	Phe	Glu	Leu	Leu	Phe	Asn	Trp	Ser
	305				310					315				320	
Met	Ser	Leu	Pro	Cys	Asn	Met	Val	Leu	Lys	Lys	Ala	Val	Asp	Ser	Leu
			325						330					335	
Leu	Cys	Ser	Met	Cys	His	Val	His	Pro	Asn	Tyr	Phe	Ser	Leu	Leu	Met
			340					345					350		
Gly	Trp	Met	Gly	Ile	Thr	Pro	Pro	Pro	Val	Gln	Cys	His	His	Arg	Leu
			355				360					365			
Ser	Met	Thr	Asp	Asp	Ser	Lys	Lys	Gln	Asp	Leu	Ser	Ser	Ser	Leu	Thr
	370				375						380				
Asp	Asp	Ser	Lys	Asn	Ala	Gln	Ala	Pro	Leu	Ala	Leu	Thr	Glu	Ser	His
	385				390					395				400	
Leu	Ala	Thr	Leu	Ala	Ser	Ser	Ser	Gln	Ser	Pro	Glu	Ala	Ile	Lys	Gln
			405					410					415		
Leu	Leu	Asp	Ser	Gly	Leu	Pro	Ser	Leu	Leu	Val	Arg	Ser	Leu	Ala	Ser
		420					425						430		
Phe	Cys	Phe	Ser	His	Ile	Ser	Ser	Ser	Glu	Ser	Ile	Ala	Gln	Ser	Ile
	435						440					445			
Asp	Ile	Ser	Gln	Asp	Lys	Leu	Arg	Arg	His	His	Val	Pro	Gln	Gln	Cys
	450				455						460				
Asn	Lys	Met	Pro	Ile	Thr	Ala	Asp	Leu	Val	Ala	Pro	Ile	Leu	Arg	Phe
	465				470					475				480	
Leu	Thr	Glu	Val	Gly	Asn	Ser	His	Ile	Met	Lys	Asp	Trp	Leu	Gly	Gly
			485					490					495		
Ser	Glu	Val	Asn	Pro	Leu	Trp	Thr	Ala	Leu	Leu	Phe	Leu	Leu	Cys	His

930	935	940
Pro Ala His Ser Leu	Ala Ala Phe Gly Leu Phe Leu Arg Leu Pro Gly	
945	950	955
Tyr Ala Glu Val Leu	Leu Lys Glu Arg Lys His Ala Gln Cys Leu Leu	960
	965	970
Arg Leu Val Leu Gly Val Thr Asp Asp Gly Glu Gly Ser His Ile Leu		975
	980	985
Gln Ser Pro Ser Ala Asn Val Leu Pro Thr Leu Pro Phe His Val Leu		990
	995	1000
Arg Ser Leu Phe Ser Thr Thr Pro Leu Thr Thr Asp Asp Gly Val Leu		1005
	1010	1015
Leu Arg Arg Met Ala Leu Glu Ile Gly Ala Leu His Leu Ile Leu Val		1020
1025	1030	1035
Cys Leu Ser Ala Leu Ser His His Ser Pro Arg Val Pro Asn Ser Ser		1040
	1045	1050
Val Asn Gln Thr Glu Pro Gln Val Ser Ser His Asn Pro Thr Ser		1055
	1060	1065
Thr Glu Glu Gln Gln Leu Tyr Trp Ala Lys Gly Thr Gly Phe Gly Thr		1070
	1075	1080
Gly Ser Thr Ala Ser Gly Trp Asp Val Glu Gln Ala Leu Thr Lys Gln		1085
	1090	1095
Arg Leu Glu Glu Glu His Val Thr Cys Leu Leu Gln Val Leu Ala Ser		1100
1105	1110	1115
Tyr Ile Asn Pro Val Ser Ser Ala Val Asn Gly Glu Ala Gln Ser Ser		1120
	1125	1130
His Glu Thr Arg Gly Gln Asn Ser Asn Ala Leu Pro Ser Val Leu Leu		1135
	1140	1145
Glu Leu Leu Ser Gln Ser Cys Leu Ile Pro Ala Met Ser Ser Tyr Leu		1150
	1155	1160
Arg Asn Asp Ser Val Leu Asp Met Ala Arg His Val Pro Leu Tyr Arg		1165
	1170	1175
Ala Leu Leu Glu Leu Leu Arg Ala Ile Ala Ser Cys Ala Ala Met Val		1180
1185	1190	1195
Pro Leu Leu Leu Pro Leu Ser Thr Glu Asn Gly Glu Glu Glu Glu		1200
	1205	1210
Gln Ser Glu Cys Gln Thr Ser Val Gly Thr Leu Leu Ala Lys Met Lys		1215
	1220	1225
Thr Cys Val Asp Thr Tyr Thr Asn Arg Leu Arg Ser Lys Arg Glu Asn		1230
	1235	1240
Val Lys Thr Gly Val Lys Pro Asp Ala Ser Asp Gln Glu Pro Glu Gly		1245
	1250	1255
Leu Thr Leu Leu Val Pro Asp Ile Gln Lys Thr Ala Glu Ile Val Tyr		1260
1265	1270	1275
Ala Ala Thr Thr Ser Leu Arg Arg Ala Asn Gln Glu Lys Lys Leu Gly		1280
	1285	1290
Glu Tyr Ser Lys Lys Ala Ala Met Lys Pro Lys Pro Leu Ser Val Leu		1295
	1300	1305
Lys Ser Leu Glu Glu Lys Tyr Val Ala Val Met Lys Lys Leu Gln Phe		1310
	1315	1320
Asp Thr Phe Glu Met Val Ser Glu Asp Glu Asp Gly Lys Leu Gly Phe		1325
	1330	1335
Lys Val Asn Tyr His Tyr Met Ser Gln Val Lys Asn Ala Asn Asp Ala		1340
1345	1350	1355
Asn Ser Ala Ala Arg Ala Arg Arg Leu Ala Gln Glu Ala Val Thr Leu		1360

1365 1370 1375
 Ser Thr Ser Leu Pro Leu Ser Ser Ser Ser Val Phe Val Arg Cys
 1380 1385 1390
 Asp Glu Glu Arg Leu Asp Ile Met Lys Val Leu Ile Thr Gly Pro Ala
 1395 1400 1405
 Asp Thr Pro Tyr Ala Asn Gly Cys Phe Glu Phe Asp Val Tyr Phe Pro
 1410 1415 1420
 Gln Asp Tyr Pro Ser Ser Pro Pro Leu Val Asn Leu Glu Thr Thr Gly
 1425 1430 1435 1440
 Gly His Ser Val Arg Phe Asn Pro Asn Leu Tyr Asn Asp Gly Lys Val
 1445 1450 1455
 Cys Leu Ser Ile Leu Asn Thr Trp His Gly Arg Pro Glu Glu Lys Trp
 1460 1465 1470
 Asn Pro Gln Thr Ser Ser Phe Leu Gln Val Leu Val Ser Val Gln Ser
 1475 1480 1485
 Leu Ile Leu Val Ala Glu Pro Tyr Phe Asn Glu Pro Gly Tyr Glu Arg
 1490 1495 1500
 Ser Arg Gly Thr Pro Ser Gly Thr Gln Ser Ser Arg Glu Tyr Asp Gly
 1505 1510 1515 1520
 Asn Ile Arg Gln Ala Thr Val Lys Trp Ala Met Leu Glu Gln Ile Arg
 1525 1530 1535
 Asn Pro Ser Pro Cys Phe Lys Glu Val Ile His Lys His Phe Tyr Leu
 1540 1545 1550
 Lys Arg Val Glu Ile Met Ala Gln Cys Glu Glu Trp Ile Ala Asp Ile
 1555 1560 1565
 Gln Gln Tyr Ser Ser Asp Lys Arg Val Gly Arg Thr Met Ser His His
 1570 1575 1580
 Ala Ala Ala Leu Lys Arg His Thr Ala Gln Leu Arg Glu Glu Leu Leu
 1585 1590 1595 1600
 Lys Leu Pro Cys Pro Glu Gly Leu Asp Pro Asp Thr Asp Ala Pro
 1605 1610 1615
 Glu Val Cys Arg Ala Thr Thr Gly Ala Glu Glu Thr Leu Met His Asp
 1620 1625 1630
 Gln Val Lys Pro Ser Ser Ser Lys Glu Leu Pro Ser Asp Phe Gln Leu
 1635 1640 1645

<210> 5877

<211> 683

<212> DNA

<213> Homo sapiens

<400> 5877

ngcggcgccg cgacggcgcg cggcgccggt tccagcatga aggggagagc tggcctgggg
 60
 ggcagcatga ggtcagtggt gggcttcttg tccagcggg gcttgcatgg ggaccctcg
 120
 ctactcagg acttccagag gagacgcctg cggggctgca gaaacctcta caagaaggac
 180
 ctccctggcc acttcggctg tgtcaatgcc attgaattct ccaacaatgg aggccagtgg
 240
 ctgggtctcag gaggagatga ccgccgggtt ctgctatggc acatggaaca agccatccac
 300
 tccagggtga agccataca gctgaaagga gagcaccatt ccaacatttt ttgcctgggt
 360

ttcaacagtg ggaacactaa agtgttctct ggaggcaatg atgagcaagt tatctccat
 420
 gatgttgaaa gcagtgcagac attggacgtg tttgctcatg aagatgcagt atatgcttg
 480
 tctgtgagcc cagtgaatga caacattttt gccagttcct cagatgatgg ccgggttctc
 540
 atttgggaca ttcgggaatc ccccatgga gagcccttct gctggggcaaa ctatccatca
 600
 gcctttcata gtgtcatgtt taaccctgtg gagcccaggt tgttggcccc agccaattca
 660
 aaggaaggag tgggactctg gga
 683

<210> 5878

<211> 227

<212> PRT

<213> Homo sapiens

<400> 5878

Xaa Gly Gly Ala Thr Gly Gly Gly Gly Gly Ser Ser Met Lys Gly Arg
 1 5 10 15
 Ala Gly Leu Gly Gly Ser Met Arg Ser Val Val Gly Phe Leu Ser Gln
 20 25 30
 Arg Gly Leu His Gly Asp Pro Leu Leu Thr Gln Asp Phe Gln Arg Arg
 35 40 45
 Arg Leu Arg Gly Cys Arg Asn Leu Tyr Lys Lys Asp Leu Leu Gly His
 50 55 60
 Phe Gly Cys Val Asn Ala Ile Glu Phe Ser Asn Gly Gly Gln Trp
 65 70 75 80
 Leu Val Ser Gly Gly Asp Asp Arg Arg Val Leu Leu Trp His Met Glu
 85 90 95
 Gln Ala Ile His Ser Arg Val Lys Pro Ile Gln Leu Lys Gly Glu His
 100 105 110
 His Ser Asn Ile Phe Cys Leu Ala Phe Asn Ser Gly Asn Thr Lys Val
 115 120 125
 Phe Ser Gly Gly Asn Asp Glu Gln Val Ile Leu His Asp Val Glu Ser
 130 135 140
 Ser Glu Thr Leu Asp Val Phe Ala His Glu Asp Ala Val Tyr Gly Leu
 145 150 155 160
 Ser Val Ser Pro Val Asn Asp Asn Ile Phe Ala Ser Ser Ser Asp Asp
 165 170 175
 Gly Arg Val Leu Ile Trp Asp Ile Arg Glu Ser Pro His Gly Glu Pro
 180 185 190
 Phe Cys Trp Ala Asn Tyr Pro Ser Ala Phe His Ser Val Met Phe Asn
 195 200 205
 Pro Val Glu Pro Arg Leu Leu Ala Pro Ala Asn Ser Lys Glu Gly Val
 210 215 220
 Gly Leu Trp
 225

<210> 5879

<211> 1555

<212> DNA

<213> Homo sapiens

<400> 5879
tttttttttt tttttttttt ttttgaacag ggaaagttaa atatagagaa ttactggctt
60
taacagtgaa ctggaataat gagggcttca ctggtaaaat gcttctgaat tgactggaaa
120
tccattggg gtgctgggga acgttattcc cagagagggt cctcagtga ggctgtgtgt
180
ctccacgca acttctgagg gctggagggt gccagggca gctgctgacc gctgggtgct
240
tcaggagctg ggtgctgggg aagccacatg cactgcgcgc tcagaggca gaagcacaac
300
caacaagaac cacgaaggag gcgcctttcc tcctataatg cctgtttggt gccctctact
360
gacaaagctt atcccccttc aaaaaacagc caactgaaaa agctgaattt ggaacataaa
420
gtcaataaat ccataaccag caatactatg gggcctgggg tgcgctggcc tttagttagt
480
ggagtggggc gaaggatgct gcatgtcctg cagtgggcac agcggccctg cacgggggag
540
aaccatccct gtaaagtgtc agtagtagcc cctgtgtcag tcagggtccc tgcaagaaat
600
ggcagtgcac tcacataagg acagttagag aagagtcctc tgacaagggt agtgtggctc
660
tctgcgcta ctaacagcct gagcctttac ctccccaggc ctgaacaggg gcatggaaag
720
ggctgcctga cagggtgaca ggagctgtga cctttagcca agggcagcca ggaataaata
780
ctgggaactc acgctctctc ctgtgattgg ccagcaccac tccccaccc tgacgttgag
840
tgaagacaaa tggaagccag aagtgtgggt agctaccaga cattccatgc agcccctga
900
gaagccacgt gagtggggac agggctaaag gctaggcagg gacagggctg gctgtgtccc
960
gaggctgctc ctccggccct gacttcaggc cctcagccca gtgcactccc acaacctgcg
1020
aattgggcag catctctctc accaatatct gagtgaggcc aggggtggac acggcaggga
1080
ggtccgagat gtccagcctg cggagggttc gaggttatcc aggcctcgt agttgatgtc
1140
acagtcccg gcatccacag ctctgacagg cacttcacag aaattccaga actcctgaga
1200
gaaatggcca tacttatctg gcctgatcca ctccctgtct cgaaacttga ctgcgcctcc
1260
ctgcttcagg atgaaaaagg cactgcgcgc gtatggacca tgttgcttct ccagccagggt
1320
gtaagatcga tttttctcat gcaccttgta catctccctt tggagcaagt aatccctcag
1380
agcctccaca tcgtagaaat agttgggtcag gaactggagt attgtccttt tcttcttctg
1440
actgccctct ggggccactg ccgcaccagc gcgatggatg cccctgatac gccatttcca
1500
catgggggag accaggcgca gggacgcccc gggagccgcc atcttgctaa ggtttt
1555

<210> 5880

<211> 185

<212> PRT

<213> Homo sapiens

<400> 5880

```

Met Ala Ala Pro Trp Ala Ser Leu Arg Leu Val Ala Pro Met Trp Asn
 1           5           10           15
Gly Arg Ile Arg Gly Ile His Arg Leu Gly Ala Ala Val Ala Pro Glu
          20           25           30
Gly Ser Gln Lys Lys Lys Arg Thr Ile Leu Gln Phe Leu Thr Asn Tyr
          35           40           45
Phe Tyr Asp Val Glu Ala Leu Arg Asp Tyr Leu Leu Gln Arg Glu Met
          50           55           60
Tyr Lys Val His Glu Lys Asn Arg Ser Tyr Thr Trp Leu Glu Lys Gln
65           70           75           80
His Gly Pro Tyr Gly Ala Gly Ala Phe Phe Ile Leu Lys Gln Gly Gly
          85           90           95
Ala Val Lys Phe Arg Asp Lys Glu Trp Ile Arg Pro Asp Lys Tyr Gly
          100          105          110
His Phe Ser Gln Glu Phe Trp Asn Phe Cys Glu Val Pro Val Glu Ala
          115          120          125
Val Asp Ala Gly Asp Cys Asp Ile Asn Tyr Glu Gly Leu Asp Asn Leu
          130          135          140
Arg Thr Ser Ala Gly Trp Thr Ser Arg Thr Ser Leu Pro Cys Pro Thr
          145          150          155          160
Leu Ala Ser Leu Arg Tyr Trp Trp Arg Arg Cys Cys Pro Ile Ala Arg
          165          170          175
Leu Trp Glu Ser Thr Gly Leu Arg Ala
          180          185

```

<210> 5881

<211> 327

<212> DNA

<213> Homo sapiens

<400> 5881

```

ngcgcgcccc ggcccggtggc ccgcgagaag acctcgctgg gcagcttgaa gcgcgcacgc
60
gtggacgtgg acctgctggc cccgcgcagc cccatggcca aggagaacat ggtgaccttc
120
agccacacgc tgcccagggc cagcgcgcgc tcgctggaac accccgcgcg ccgccacatg
180
accatccacg tgccgctgga cgctcgcgcc tccaagcagc tcatcagcga gtggaagcag
240
aagagcctgg agggccgcgg cctggggctg cccgacgacg ccagccccgg gcacctgcgc
300
gcgccgcgcg aaccatgcc ggaggan
327

```

<210> 5882

<211> 109

<212> PRT

<213> Homo sapiens

<400> 5882

```

Xaa Ala Pro Arg Pro Val Ala Arg Glu Lys Thr Ser Leu Gly Ser Leu
 1           5           10           15
Lys Arg Ala Ser Val Asp Val Asp Leu Leu Ala Pro Arg Ser Pro Met
           20           25           30
Ala Lys Glu Asn Met Val Thr Phe Ser His Thr Leu Pro Arg Ala Ser
           35           40           45
Ala Pro Ser Leu Asp Asp Pro Ala Arg Arg His Met Thr Ile His Val
           50           55           60
Pro Leu Asp Ala Ser Arg Ser Lys Gln Leu Ile Ser Glu Trp Lys Gln
           65           70           75           80
Lys Ser Leu Glu Gly Arg Gly Leu Gly Leu Pro Asp Asp Ala Ser Pro
           85           90           95
Gly His Leu Arg Ala Pro Ala Glu Pro Met Pro Glu Xaa
           100           105

```

<210> 5883

<211> 579

<212> DNA

<213> Homo sapiens

<400> 5883

```

nggtcgacct ctgcttcctt acagcacccc cacctgccag agctgatcct ccctaggccc
60
tgcctaacct tgagttggcc cccaatccct ctggctgcag aagtcacctt accccaatg
120
agaggaggagg caggaccaga tcttttgaga gctgaggggt gagggcattg agccaacaca
180
cagatctgtc gcctctgtcc cgaagacac ctgcaccttc catgcgaggc caagatgggg
240
aatggaactg aggaagatta taactttgtc ttcaagggtg tgctgatcgg cgaatcaggt
300
gtgggggaaga ccaatctact ttcccgatcc acgcgcgaatg agttcagcca cgacagccgc
360
accaccatcg ggggttgagtt ctccaccgcc actgtgatgt tgggcaccgc tgctgtcaag
420
gctcagatct gggcacacagc tgggtgtttga cctaaccaag caccagacct atgctgtggg
480
ggagcgatgg ctgaaggagc tctatgacca tgctgaagcc acgatcgtgc tcatgctcgt
540
gggtaacaaa agtgacctca gccaggcccg ggaagtgcc
579

```

<210> 5884

<211> 71

<212> PRT

<213> Homo sapiens

<400> 5884

```

Met Gly Asn Gly Thr Glu Glu Asp Tyr Asn Phe Val Phe Lys Val Val
 1           5           10           15
Leu Ile Gly Glu Ser Gly Val Gly Lys Thr Asn Leu Leu Ser Arg Phe

```

20 25 30
 Thr Arg Asn Glu Phe Ser His Asp Ser Arg Thr Thr Ile Gly Val Glu
 35 40 45
 Phe Ser Thr Arg Thr Val Met Leu Gly Thr Ala Ala Val Lys Ala Gln
 50 55 60
 Ile Trp Asp Thr Ala Gly Val
 65 70

<210> 5885
 <211> 1905
 <212> DNA
 <213> Homo sapiens

<400> 5885
 ggcaaggga aaccggctgt ggagaaggaa atagggcccg gcgctgagtg agcgtgggtg
 60
 cgtgtccttt gcagacactt tctggggcga ggtgacatgg cgagagtcctt ggatcgggtg
 120
 acgtagacgg tagacagttc gcgtgcgttt ccttcgccta cttggcctac atgccttctg
 180
 cccgtgaagc gatgtttccc ctcgaaaggc cgtagacgcc gtcagaatcg gtttttcagt
 240
 gagttttgac cccctccgac ctccgtctct gacagaatcg cggcgttctt cgtaccgcc
 300
 catcctccgc ggacgcccgc tgcctggcgg actctgctgc gccctgtcct ccgtcggctc
 360
 tgcgggctcc cggggcctaca gcggcctcgc gcagaaatgc ccctccgggc taggagcgac
 420
 ggcgcgggcc cgctatactc gcaccacctc cccacctccc cgctgcagaa agcgtggtg
 480
 gccgcgggct ccgcggcgat ggcgctctat aacccctacc gccacgacat ggtcgcagtt
 540
 ctagggggaga ccacaggaca ccgcacctg aaggtcctca gggaccagat gaggagggat
 600
 ccagaggggt cccagatcct gcaggagcgt ccccgattt cgacatccac cctcgacctg
 660
 ggcaagctcc agagcctgcc ggaaggctcc ctccgctcgc agtatctccg tttcctggat
 720
 gtgaacaggg tctcccaga caccgagca cccacctgc tcgtggatga tgaggagcta
 780
 gcgtatgtga ttacgcggtc ccgggaggtg cagacatgc ttcacacct cctggggagt
 840
 ccaccaaca tctcggggga gatcgtggtg aaatggtttg aggctgtcca gactggcctg
 900
 ccattgtgca tctcgggtgc attctttgga ccgatccgac ttggcgctca gagcctgcaa
 960
 gtgctgtgtc cggagttgat cccatgggac gttcagaacg ggcgcagagc cccattgtc
 1020
 ctcaacctgt actatgagcg gcgctgggag cagtccctga gggctctcgc ggagagagtg
 1080
 ggcattacag caccacccat gcacgtccag ggcttggtcc gagctcctga gccagcgggg
 1140
 cctggcctac ctcccccatc cctgcttcc cttggaggca gagggctccc ttgactacct
 1200

ttgttctctt tctttgaaca ctgacccttg gacaacattt atcataattt gtcataacca
 1260
 ctgctgagtg gccttgagga cgaaccccgc agggagcaag cagtacagtg gcattcccag
 1320
 ggggaccagc agctacccaa ggagaacccat gcattgaacag tatcagtcgt ctggggctcat
 1380
 gctgggatgt cgcagtgtc ctgttgcaac tcctcccgag cagccaggtt tgctgggggc
 1440
 caggctgggt gtcctcacag gagtgggggc tacaccaat tccaaaagcc tgagaagaga
 1500
 gaagtggagg gggaggcgag tgtgtgaata aaggctccca tcagggtcaaa aaaaaaaaaa
 1560
 aaagaaaaca aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaactccgg gggggggccc
 1620
 agtaccatt ttgcccttta agtgggggct atttaacctt taacttggcc ccggtttttt
 1680
 aaacctcttg atcttgggga aacccggggg ggttttcccc cctttaattg cccttttaag
 1740
 ggcattcccc tcttttgcca ctgggggaat ttttgccaag ggggcccccc atttagcctt
 1800
 tttccaagct tttggagccc catttgggag ttggccattt tagcgttatt tttttttttt
 1860
 taattacggc gggactattt tgttttaaat cgaccctctt ttttt
 1905

<210> 5886

<211> 265

<212> PRT

<213> Homo sapiens

<400> 5886

Met Ala Thr Leu Leu Arg Pro Val Leu Arg Arg Leu Cys Gly Leu Pro
 1 5 10 15
 Gly Leu Gln Arg Pro Ala Ala Glu Met Pro Leu Arg Ala Arg Ser Asp
 20 25 30
 Gly Ala Gly Pro Leu Tyr Ser His His Leu Pro Thr Ser Pro Leu Gln
 35 40 45
 Lys Ala Leu Leu Ala Ala Gly Ser Ala Ala Met Ala Leu Tyr Asn Pro
 50 55 60
 Tyr Arg His Asp Met Val Ala Val Leu Gly Glu Thr Thr Gly His Arg
 65 70 75 80
 Thr Leu Lys Val Leu Arg Asp Gln Met Arg Arg Asp Pro Glu Gly Ala
 85 90 95
 Gln Ile Leu Gln Glu Arg Pro Arg Ile Ser Thr Ser Thr Leu Asp Leu
 100 105 110
 Gly Lys Leu Gln Ser Leu Pro Gly Gly Ser Leu Gly Arg Glu Tyr Leu
 115 120 125
 Arg Phe Leu Asp Val Asn Arg Val Ser Pro Asp Thr Arg Ala Pro Thr
 130 135 140
 Arg Phe Val Asp Asp Glu Glu Leu Ala Tyr Val Ile Gln Arg Tyr Arg
 145 150 155 160
 Glu Val His Asp Met Leu His Thr Leu Leu Gly Met Pro Thr Asn Ile
 165 170 175
 Leu Gly Glu Ile Val Val Lys Trp Phe Glu Ala Val Gln Thr Gly Leu

	180		185		190
Pro Met Cys	Ile Leu Gly Ala Phe	Phe Gly Pro	Ile Arg Leu Gly Ala		
195	200	205			
Gln Ser Leu	Gln Val Leu Val Ser	Glu Leu Ile	Pro Trp Ala Val Gln		
210	215	220			
Asn Gly Arg	Arg Ala Pro Cys Val	Leu Asn Leu Tyr	Tyr Glu Arg Arg		
225	230	235	240		
Trp Glu Gln	Ser Leu Arg Ala Leu	Arg Glu Glu Leu	Gly Ile Thr Ala		
	245	250	255		
Pro Pro Met	His Val Gln Gly Leu Ala				
260	265				

<210> 5887

<211> 3779

<212> DNA

<213> Homo sapiens

<400> 5887

gcggcgacac gcaggcaagg cgggcggcgc ggccgtggct atcaccgaac cggagcacac
60
caaggagcgc gtcaaaacttg aagggtcaaa gtgcaaaggg cagcttttga tttttggggc
120
aaccgaactgg gacttgattg gtcgaaaaga agtgccctaaa cagcaagctg cttaccgcaa
180
tctcgggtcag aattttgtggg ggccccacag atatgggtgc ctggcggggg tccgggtgcg
240
gacagtggtc tcgggctcgt gtgctgcaca cagctcctcc atcaccacgg aaggggcagct
300
gtggagctgg ggtcgaaatg agaaggggca gctgggacat ggtgacacca agagagtaga
360
agcccttaga ctcatcgagg gtcttagcca cgaagtgatt gtgtctgcag catgtggggc
420
gaaccacacc ttggcccttga cggaaacggg ctccgtgttt cgttttgggg aaaacaagat
480
ggggcagctg ggccttggca accagacaga cgctgttccc agccccgcgc agataatgta
540
caacggccag ccaattacca aaatggcctg tggggctgaa ttcagtatga taatgggactg
600
caaaggaaac ctctattcct ttgggtgccc tgaatatggt cagctgggac acaactcaga
660
tggggaagttc atcgcccggg cacagcggat agagtaacag tgtgaactag ttccccggcg
720
agtggccatc ttcattgaga agacgaaaga tggacagatt ctgcctgtac caagcggaag
780
tgaggaggagg accgggacac cgtgggtcgaa gggctgaggc gcctgtcgga ctcccccgag
840
tacatgtggt ttctcctgta ctgcgagggg acgcgcttca cggagaccaa gcaaccgctt
900
agcatggagg tggcggtgct taaggggctt cctgtcctca agtaccacct gctgccgcgg
960
accaagggct tcaccaccgc agtcaagtgc ctccggggga cagtcgcagc tgtctatgat
1020
gtaacctga acttcagagg aaacaagaac ccgtccctgc tggggatcct ctacgggaag
1080

aagtacgagg cggacatgtg cgtgaggaga ttctctctgg aagacatccc gctggatgaa
1140
aaggaagcag ctacgtggct tcataaactg taccaggaga aggacgcgct ccaggaggta
1200
aagactctgg atggcatggt tccaggggag cagttttaga ctccctcccg gagccgttgg
1260
acctctctga acctctctgc ctgggccacc attctctctg ctccctctct cagtttttng
1320
tcttgggcgt ctttgccagc ggatcacctc tcctgatcct gactttcttg ggtttgttgg
1380
gagcagcttc ctttgaggtt cgcagactga taggagtaac tgagatagaa aaagggtccc
1440
agctacgaa accaagagtt taagaaaaag gaataattaa tggctgtgac tgaacacacg
1500
cgccctctgac ggtgggtatcc agttaactca aaaccaaac acagagtgcg ggaagagaca
1560
attagaaact atttttctta ttaactgggt actaatatta acaaaacttg agccaagagt
1620
aaagaattca gaaggcctgt caggtgaagt cttcagcctc ccacagcgca ggggtcccgagc
1680
atctccacgc gcgcccgttg gaggtgggtc cgcccgagga ggcctcccg cgcagccgtc
1740
tctccagaac tccgcttcca agaggggagc tttggtctgt ttctctctct aaacttagat
1800
caaatTTTTT ggttttttaa cagttatctt gggaacttaa cctggccctt cactctctct
1860
gcaccccccg ccccgaaac tgtctcgtaa tgaatttctg ctgtctctct gggagtggac
1920
ggccgggtcc cgtcccccg gagcatcgct cggtccagca ccttggtctc cagtgggggc
1980
ccgtggagg gcgcccgtag tgataagcac accggcacga acgtcaggtc cattctcga
2040
agtcggagcc ctactctgc cctgtctctg ggctggctga gggcgaaagc cccacctcac
2100
ttcttagagc cctgtctctg ctactctcta tctgaacttg tgtgtaata cgtacatctg
2160
tttttaaagt ggatggggcc ctgagaactc agtgaatgc agagtctctc atgcacctaa
2220
agctcctttg tcgtctctat ggctgtcaga tctcgttccc tccactctg gtgtggggga
2280
gggaggagcc tcggggctac cgcgcgcccc cccatccac agatcaggag ccaaggaggg
2340
agaacagggc agcctgtggg actctaggat gcttcagaag aagcgacggc accgtcaacc
2400
ctctgttttt taaagggtgt tggagactgt taacactgag ctcatctact tctagagatt
2460
ttatttttac tgggttgatct cttggtgggt ttcaacttcc tgctggaaac tagaggtggg
2520
gcacccccca cccccagcc tcgcactgtg tccttgggga gggcccgccc ccatctctgc
2580
cggtgtcact gtggcccggc caacctgag cgccagctc cctacctctt ggagctctct
2640
gagagtccag gcagagcaga gggcagcgct cgcccggtca tgctggctcc cttggccttg
2700

cagcgcagccc ctggcccaacg ccgagcgcagg gatgcttctc cctacagcat gtccactccc
 2760
 ccggcatggc cagggtggggc ccttggggca atggcagtg tagaacgcgc aacttggttg
 2820
 cggtagccatc agcccacctg catttggcct tcgacttgct tgttctaagt cacagcggcc
 2880
 tcactttttt agcaaggtaa aaaaacccaa atgggtgtta tctctgatat ctgaaacca
 2940
 gcgttctgaa tagaggtagg ttgagttttc taggggaaaa caaatggaga aaagaggcat
 3000
 gaagaaaaagt aaaccgagaa cataattagg catcgggcct aagtgtcctg gggagattgg
 3060
 aggggacggc agcgtttctg atgatggagg cgctccggg ccccggtct gtgggggccc
 3120
 tgctctcagg gcgtgtgcgg gacgccacct gtgcacacct gctcagagca cggtcctcg
 3180
 cagggggtgaa ggggcagacc aacgaaacca gatgagacca acgacacct gcgagacacg
 3240
 cttgcagaca ctgttgtttt ggaatatgtc ttccctccat ctgaaatctc atccctccac
 3300
 ccgccactc gggcagctgt gcgtggggca gggcatgcgc tcccctggct gagcacccca
 3360
 gagattctctc tgcaccttc tcatgccgca cgctgctcat ccgtctccat gtgtgtttag
 3420
 atccatgcca ttactgact cactaacacc tgcaaatct ttaaggaaaa aagctgaagg
 3480
 gtacgacct gcacatatgt gacctggaaa atgcaaat ttgattctttt tgatttaatt
 3540
 gttattgttt cccatagaag ttccctccct ttgaaattaa tatataatg ataaattctg
 3600
 cactgagcca tggcggagct gggcagcccc taggttagag tggagacgga gggccaggcg
 3660
 cagggggtcac acctcatctg gtttcttcc catctcacag cttagcttgt gcttctcaac
 3720
 accaagtctt taagagcaat aaaaactaca ccatgaaaaa aaaaaaaaaa aaaaaaaaaa
 3779

<210> 5888

<211> 166

<212> PRT

<213> Homo sapiens

<400> 5888

Glu Asp Glu Arg Trp Thr Asp Ser Ala Cys Thr Lys Arg Lys Trp Glu
 1 5 10 15
 Glu Asp Arg Asp Thr Val Val Glu Gly Leu Arg Arg Leu Ser Asp Tyr
 20 25 30
 Pro Glu Tyr Met Trp Phe Leu Leu Tyr Cys Glu Gly Thr Arg Phe Thr
 35 40 45
 Glu Thr Lys His Arg Val Ser Met Glu Val Ala Ala Ala Lys Gly Leu
 50 55 60
 Pro Val Leu Lys Tyr His Leu Leu Pro Arg Thr Lys Gly Phe Thr Thr
 65 70 75 80
 Ala Val Lys Cys Leu Arg Gly Thr Val Ala Ala Val Tyr Asp Val Thr

	85		90		95
Leu Asn Phe	Arg Gly Asn Lys Asn Pro Ser Leu Leu Gly Ile Leu Tyr				
	100		105		110
Gly Lys Lys Tyr Glu Ala Asp Met Cys Val Arg Arg Phe Pro Leu Glu					
	115		120		125
Asp Ile Pro Leu Asp Glu Lys Glu Ala Ala Gln Trp Leu His Lys Leu					
	130		135		140
Tyr Gln Glu Lys Asp Ala Leu Gln Glu Val Lys Thr Leu Asp Gly Met					
	145		150		155
Phe Pro Gly Glu Gln Phe					160
	165				

<210> 5889

<211> 2198

<212> DNA

<213> Homo sapiens

<400> 5889

gctagccgctc cgagccgagc cgtccgagcc ggggaagccg ggcgcgtgct gccgctcgtg
 60
 gcggggccgag acagtcttgc actgtttcct aggcctggagt gcagtggcac aatcacagct
 120
 cactgcagcc ttgacttccc aggtccaagc cattctccta cctcagccctc ccaagcagtt
 180
 gggaccacag gagaggagag gcagcagcat ggcgagtgtc ctgtcccgac gccctggaaa
 240
 gcgggtccctc ctgggagccc gsgtggtggg acccagtgcc tcggaggggc cctcggctgc
 300
 ccaccctcg gagccactgc tagaaggggc cgtctcccag cctttcacca cctctgatga
 360
 caccctctgc caggagcagc ccaaggaagt cottaaggct ccagcacctc cgggccttca
 420
 gcaggtggcc ttccagcctg ggcagaaggt ttatgtgtgg tacggggggtc aagagtgcac
 480
 aggcagtggg gagcagcaca gctggatgga gggtcagggt accgtctggc tgctggagca
 540
 gaagctgcag gtctgctgca ggtggagga ggtgtggctg gcagagctgc agggccctg
 600
 tcccaggca ccacccttg agcccggagc ccaggccctg gcctacaggc ccgtctccag
 660
 gaacatcgat gtcccaaaga ggaagtcgga cgcagtgga atggatgaga tgatggcggc
 720
 catggtgctg acgtccctgt cctgcagccc tgtgttacag agtctcccg ggaccgggc
 780
 caactctctc gcttccctg cggcctgcga cccatggaag gagagtggg acatctcgga
 840
 cagcggcagc agcactacca gcggtcactg gagtgggagc agtgggtgtc cccccctc
 900
 gccccccac cccagggcca gcccgaagta tttggggat gcttttggt cttcccaaac
 960
 tgatcatggc tttgagaccg atctcgaccc tttctgctg gacgaaccag ctccacgaaa
 1020
 aagaagaac tctgtgaagg tgatgtacaa gtgcctgtgg ccaaactgtg gcaaagtctc
 1080

gcgctccatt gtgggcatca aacgacacgt caaagccctc catctggggg acacagtggg
 1140
 ctctgatcag ttcaagcggg aggaggattt ctactacaca gaggtgcagc tgaaggagga
 1200
 atctgctgct gctgctgctg ctgctgccgc aggcacccca gtcctgggga tccccacctc
 1260
 cgagccagct cccaccccca gcatgaactgg cctgectctg tctgctcttc caccacctct
 1320
 gcacaaagcc cagtcctcgc gcccagaaca tcttgccgcg gagtctctcc tgccctcagg
 1380
 ggctctcagc aagtcagctc ctgggtcctt ctggcacatt caggcagatc atgcatacca
 1440
 ggctctgcca tcttccaga tccagctctc accacacatc tacaccagtg tcagctgggc
 1500
 tgcctgcccc tccgcgcctt gctctctctc tccggtccgc agccggctgc taagcttcag
 1560
 cgagccccag cagccagcac ctgcatgaa atctcatctg atcgtcactt tccccccg
 1620
 ggccagagt ggtgccagga aagcccgagg ggaggctaag aagtgccgca aggtgtatgg
 1680
 catcgagcac cgccaccagt ggtgcacggc gtgccgggtg aagaaggcct gccagcgctt
 1740
 tctggactga gctgtgctgc aggttctact ctgttctctg cctgcccggc agccactgac
 1800
 aagagggccag tgtgtcacca gccctcagca gaaaccgaaa gagaagaac ggaacacagg
 1860
 agtttgggct ctgttggcta aggtgtaaca cttaaagcaa ttttctccca ttgtgcgaac
 1920
 attttatttt ttaaaaaaaaa gaaacaaaaa tatttttccc cctaaaatag gagagagcca
 1980
 aaactgacca aggcatttca gcagtgaacc agtgacaaa gaattaatta cctccgctt
 2040
 cccacatccc cactctctag gggattagct tgtgcgtgtc aaaagaagga acagctcggt
 2100
 ctgcttctct ctgagtcggt gaattctttg ctttctaaac tcttcagaa aggactgtga
 2160
 gcaagatgaa tttacttttc ttaaaaaaaaa aaaaaaaaa
 2198

<210> 5890

<211> 118

<212> PRT

<213> Homo sapiens

<400> 5890

Ala Ser Arg Pro Ser Arg Ala Val Arg Ala Gly Glu Ala Gly Arg Val
 1 5 10 15
 Leu Pro Leu Val Ala Gly Arg Asp Ser Leu Ala Leu Phe Pro Arg Leu
 20 25 30
 Glu Cys Ser Gly Thr Ile Thr Ala His Cys Ser Leu Asp Phe Pro Gly
 35 40 45
 Ser Ser His Ser Pro Thr Ser Ala Ser Gln Ala Val Gly Thr Thr Gly
 50 55 60
 Glu Glu Arg Gln Gln His Gly Glu Cys Pro Val Pro Thr Pro Trp Lys

```

65              70              75              80
Ala Val Pro Pro Gly Ser Pro Gly Val Gly Thr Gln Cys Leu Gly Gly
      85              90              95
Ala Leu Gly Cys Pro Thr Leu Gly Ala Thr Ala Arg Arg Gly Arg Ser
      100              105              110
Pro Ala Phe His His Leu
      115

<210> 5891
<211> 1459
<212> DNA
<213> Homo sapiens

<400> 5891
nggtgagaca ggggtctcact gtcgcccagg catgagtgac gcagaaacag cctatagacg
60
ccacgagtcg gcggcgctac cgaggggctg tgggcgcgca gctggaacct ccggtgtgca
120
gtgcgcttac agttcctaac cccgacctg cgcgcgagccc gcaactatggc agccccgcg
180
cagctaaagg ctctgctcgt agtcgtcaac gcaactgtgc gcaagcgccg ctaccacgct
240
gcgttggcgc tgcttaaggc ctccgggaac ggggctgtct atggagccaa aatccgggcc
300
cctcacgcgc tgggtcatgac ctttctcttc cggaatggca gcctccagga gaagctgtgg
360
gccatactgc agggccacata tatccactcc tggaaactgg caggtttgt gtaccactac
420
aaggggtctcc gtgcccgtgca gtccctacata caaggcaaga cctaccagc acacgcattc
480
ctggcgccct tcctcggggg tatcctgggt tttggagaaa acaataacat caacagccag
540
atcaacatgt acctgttgtc acgcgtcctg ttgcccctga gcgcctggc tgtagagaag
600
ggctacatcc ctgaaccagg gtgggacccg ttcccgtgcg tcaactcggt ggtgtggggg
660
ctgggtgtgt ggtcttttga gtatcacoga tccacctgc agccctcgct gcagtcctcc
720
atgacctacc tctatgagga cagcaatgta tggcacgaca tctcagactt cctcgtctat
780
aacaagagcc gtccctccaa ttaatgcagc cctgaggtgt ctggctgttg ctcaagattt
840
ggccccatgc agaccctccc aaaggatact gcctttctcaa gatcataggc ctcagactcc
900
aactgggtgt atcccagggt tccgtttgct gaagtaaaaa cactgatttt aaaatccag
960
tgggtacett tgtatggtg cacaagtggc cgaatcagge tgaggaatct acggtctggg
1020
tccagctgtg cagctgaatt ctgtgagact ggggccagcc acactactct ctaggectca
1080
ggggtcaagg agctcagagg agggccctga ggtctcttcc cggtgggtat gttcattctt
1140
caactgttct tatgtcacag agggctcctt gctggtgggc agtgggtgtt aaatactttt
1200

```

taaaaaacac taagtctctt atctcagatg ctgttctact ggagaagttc tagattccca
 1260
 ctgtccaata gaaacacgtg agccatatat gtaattaaaa tgtttctagt agctgcatta
 1320
 caaaaaagaa gcctggggcac tgtggctcac tctgtaatc tcagaacttt gggaggctga
 1380
 ggccaggtgga tcacttgagc tcaggagctt gagaccagcc tgggcaacat ggtgaaaccc
 1440
 agtttctaca aaaaaaaaaa
 1459

<210> 5892

<211> 212

<212> PRT

<213> Homo sapiens

<400> 5892

Met	Ala	Ala	Pro	Pro	Gln	Leu	Arg	Ala	Leu	Leu	Val	Val	Val	Asn	Ala
1			5					10						15	
Leu	Leu	Arg	Lys	Arg	Arg	Tyr	His	Ala	Ala	Leu	Ala	Val	Leu	Lys	Gly
			20					25						30	
Phe	Arg	Asn	Gly	Ala	Val	Tyr	Gly	Ala	Lys	Ile	Arg	Ala	Pro	His	Ala
			35				40					45			
Leu	Val	Met	Thr	Phe	Leu	Phe	Arg	Asn	Gly	Ser	Leu	Gln	Glu	Lys	Leu
			50			55				60					
Trp	Ala	Ile	Leu	Gln	Ala	Thr	Tyr	Ile	His	Ser	Trp	Asn	Leu	Ala	Arg
65				70						75				80	
Phe	Val	Phe	Thr	Tyr	Lys	Gly	Leu	Arg	Ala	Leu	Gln	Ser	Tyr	Ile	Gln
			85					90						95	
Gly	Lys	Thr	Tyr	Pro	Ala	His	Ala	Phe	Leu	Ala	Ala	Phe	Leu	Gly	Gly
			100				105						110		
Ile	Leu	Val	Phe	Gly	Glu	Asn	Asn	Asn	Ile	Asn	Ser	Gln	Ile	Asn	Met
			115				120					125			
Tyr	Leu	Leu	Ser	Arg	Val	Leu	Phe	Ala	Leu	Ser	Arg	Leu	Ala	Val	Glu
			130			135					140				
Lys	Gly	Tyr	Ile	Pro	Glu	Pro	Arg	Trp	Asp	Pro	Phe	Pro	Leu	Leu	Thr
145				150					155					160	
Ala	Val	Val	Trp	Gly	Leu	Val	Leu	Trp	Leu	Phe	Glu	Tyr	His	Arg	Ser
			165					170						175	
Thr	Leu	Gln	Pro	Ser	Leu	Gln	Ser	Ser	Met	Thr	Tyr	Leu	Tyr	Glu	Asp
			180				185						190		
Ser	Asn	Val	Trp	His	Asp	Ile	Ser	Asp	Phe	Leu	Val	Tyr	Asn	Lys	Ser
			195				200					205			
Arg	Pro	Ser	Asn												
			210												

<210> 5893

<211> 1389

<212> DNA

<213> Homo sapiens

<400> 5893

nnggatccga tgccgcgcagc gtccctggggc ccccgtagcg gggctggacc atgagcctgc
 60

tggaaggcct cgcttctctcg ccgagggtct cgctgcagtc cagcaaggcc aggatgaaaa
120
agctcccga gaagagccag aatgagaagt accggctgaa gtacctgcgg ctgcgcaag
180
cggccaaagg caccgtgttt gaaaatgctg ctattttgtga tgaattgtc cgctctgagg
240
aaaaatttct taaagcaaaa gaagaaagaa ggtacttgct aaagaagctc ctccagcttc
300
aggctctaac tgaaggggaa gtacaggctg cagctctctc ccacagttcc agtttgcccc
360
tgacttatgg tgtggccagc tctgtgggaa ctatacaggg agctgggcct atttcagggc
420
ccagcactgg ggctgaggaa ccatttggga agaaaaactaa gaaggagaaa aagaaaaaag
480
gcaaaagaaa caacaaactg gaagatcatc accgaccgac ctggcttttc tgatgagagt
540
gccatctacc ccgtgggcta ttgcagttact cgaatatatg ccagcatgaa gtgcccgac
600
cagaagtgtc tatataacctg tcagatcaag gatggtggtg tgcagcctca gtttgaaatt
660
gttctctgaag atgaccccca gaatgccatt gtcagctctt ctgcagatgc ttgtcatgca
720
gaactgtctc ggactataag cactactatg gggaaactaa tgcctaacct gcttccagct
780
ggagctgact tttttggatt ttctcatcca gccatccaca acctgatcca gagctgtcca
840
ggagctcgaa aatgcatcaa ttaccagtgg gtgaaatttg atgtgtgcaa acctggagat
900
gggcagctac ctgaggggct gccggagaat gatgcagcta tgagcttttg agcctttcag
960
agacagatct ttgatgaaga tcagaatgat ccccttctgc caggatcctt ggacctccca
1020
gagcttcagc ctgcagcctt tgtgtcttct taccagccca tgtacctgac acatgaaccc
1080
ttggtagata ctcacctgca gcacttgaag tctccatcac agggtagccc aattcagttc
1140
tcagattgaa caagaaggga tcagatgcca catcgttttt gtcgtgatta atttaactta
1200
aactaaaatt ttgggtatat gaaagaaggc agcaattcag aagtaaagaa gataactaacg
1260
tatttcacga tgggaaggctc tgtggtgatg gttttccctg ggaaaacctt cagctgcttt
1320
atttttagta ataaatttct cttgtcaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa
1380
aaaaaaaaaa
1389

<210> 5894

<211> 260

<212> PRT

<213> Homo sapiens

<400> 5894

Met Val Trp Pro Ala Leu Trp Glu Leu Tyr Arg Glu Leu Gly Leu Phe

1 5 10 15
 Gln Gly Pro Ala Leu Gly Leu Arg Asn His Leu Gly Arg Lys Leu Arg
 20 25 30
 Arg Arg Lys Lys Lys Ala Lys Arg Thr Thr Asn Trp Lys Ile Ile
 35 40 45
 Thr Asp Arg Pro Gly Phe His Asp Glu Ser Ala Ile Tyr Pro Val Gly
 50 55 60
 Tyr Cys Ser Thr Arg Ile Tyr Ala Ser Met Lys Cys Pro Asp Gln Lys
 65 70 75 80
 Cys Leu Tyr Thr Cys Gln Ile Lys Asp Gly Gly Val Gln Pro Gln Phe
 85 90 95
 Glu Ile Val Pro Glu Asp Asp Pro Gln Asn Ala Ile Val Ser Ser Ser
 100 105 110
 Ala Asp Ala Cys His Ala Glu Leu Leu Arg Thr Ile Ser Thr Thr Met
 115 120 125
 Gly Lys Leu Met Pro Asn Leu Leu Pro Ala Gly Ala Asp Phe Phe Gly
 130 135 140
 Phe Ser His Pro Ala Ile His Asn Leu Ile Gln Ser Cys Pro Gly Ala
 145 150 155 160
 Arg Lys Cys Ile Asn Tyr Gln Trp Val Lys Phe Asp Val Cys Lys Pro
 165 170 175
 Gly Asp Gly Gln Leu Pro Glu Gly Leu Pro Glu Asn Asp Ala Ala Met
 180 185 190
 Ser Phe Glu Ala Phe Gln Arg Gln Ile Phe Asp Glu Asp Gln Asn Asp
 195 200 205
 Pro Leu Leu Pro Gly Ser Leu Asp Leu Pro Glu Leu Gln Pro Ala Ala
 210 215 220
 Phe Val Ser Ser Tyr Gln Pro Met Tyr Leu Thr His Glu Pro Leu Val
 225 230 235 240
 Asp Thr His Leu Gln His Leu Lys Ser Pro Ser Gln Gly Ser Pro Ile
 245 250 255
 Gln Ser Ser Asp
 260

<210> 5895
 <211> 2748
 <212> DNA
 <213> Homo sapiens

<400> 5895
 gcaacaataa gaaagatgct gagcttctgg tggcccttgn gtctaattct ggccacacag
 60
 agaatcagtc ggcctattgt caacctcttt gtttccoggg accttggtgg cagttctgca
 120
 gccacagagg cagtggcgat ttgacagcc acataccctg tgggtcacat gccatacggc
 180
 tggttgacgg aaatccgtgc tgtgtatcct gctttcgaca agaataaccc cagcaacaaa
 240
 ctgggtgagca cgagcaacac agtcacggca gccacatca agaagttcac cttcgtctgc
 300
 atggctctgt cactcacgct ctgtttctgt atgttttggg caccacacgt gctctgagaa
 360
 atcttgatag acatcatcgg agtggacttt gcctttgcag aactctgtgt tgttcccttg
 420

cggaatcttctcctccctccg agttccagtc acagtgaggg cgcattctcac cgggtggctg
 480
 atgacactga agaaaacctt cgtccttgcc ccagctctg tgctgcggat catcgtcttc
 540
 atgcgcagcc tegtggctct accctacctg ggggtgcacg gtgcgaccct gggcggtggc
 600
 tcctccttg cgggctttgt gggagaatcc accatggctg ccacgtctgc gtgctatgtc
 660
 taccggaagc agaaaaagaa galggagaat gagtcggcca cggaggggga agactctgcc
 720
 atgacagaca tgcctccgac agaggagggt acagacatcg tggaaatgag agaggagaa
 780
 gaataaggca cgggacgcca tgggcaactgc agggacagtc agtcaggatg acacttcggc
 840
 atcatctctt cctctctcca tctattttt ttcctctttt ttgtttttgt ttgtgtaagt
 900
 aaagaggcct tgattttaaag gtttcgtgtc aattctctag catactgggt atgctcacac
 960
 tgacgggggg acctagttaa tggctcttac tgttgctatg taaaaacaaa cgaacaact
 1020
 gacttcatac ccttgcttca cgaataccca aaagacacag ctgctctacg gttagcgttg
 1080
 tgtcctcttc ccttggaaca tctcctcttg gaaccaagg actgcagctg tgccatcgcg
 1140
 cctcggctac cctgcacagc aggccacaga ctctctgtc ccccttcacg gctcttaaga
 1200
 atcaacaggt taaaactcgg ctctcttga ttgtctccc agtcacatgg ccgtacaaa
 1260
 agatggagcc ccggtggcct cttaaatctt ccttcgcga cggagtctga aacctctac
 1320
 tccacacatg caggaggcgg gtggcacgct gcagcccgga gtcccgttc acactgagga
 1380
 acggagacct gtgaccacag caggctgaca gatggacaga atctcccga gaaagtgtg
 1440
 gtttgaaatg ccccgggggc agcaaaactga catggttgaa tgatagcatt tcaactctgc
 1500
 ttctcttaga tctgagcaag ctgtcagttc tccccccac cgtgtatata catgagctaa
 1560
 cttttttaaa ttgtcaaaaa agcgcattct cagattccag accctgcgcg atgacttttc
 1620
 ctgaaggcct gcttttccct cgccttccct gaaggtcgca ttagagcgag tcacatggag
 1680
 catcctaact ttgcatttta gtttttacag tgaactgaag cttaagtaa gtctcatcca
 1740
 gcattcta at gccagggttc ttaggggtaa cttttgaagt agatatatta cctgggtctg
 1800
 ctalcttag tcataactct cgggtacagg taattgagaa tgaactacg tacttccctc
 1860
 ccacaccata cgataaagca agacatttta taacgatacc agagtcacta tgtgttcctc
 1920
 cctgaaataa cgcattcgaa atccatcgag tgcagtatat ttttctaagt ttgtgaaagc
 1980
 aggttttttc ctttaaaaaa attatagaca cggttcacta aattgattta gtcagaatcc
 2040

ctagactgaa agaacctaaa caaaaaaata ttttaaagat ataatatat gctgtatatg
 2100
 ttatgttaatt tatttttaggc tataatacat ttcctatttt cgcatttttca ataaatgtc
 2160
 tctaatacaa tacggtgatt gcttggtgag tcaacatacc tgcagttgaa acgtattgta
 2220
 tcaatgaaca ttgtacctta ttggcagcag ttttataaag tccgtcattt gcatttgaat
 2280
 gtaagggtca gtaaatgaca gaactatttt tcattatggg taactgggga ataatgggt
 2340
 cactggagta ggaatagaag tgcaagctgg aaaggcaaaa atgagaaaaga aaaaggcagg
 2400
 cccttgtgt ctaccgtttt cagtgtgtgt tgatcatatt gttcctcaca gcaaaaaaga
 2460
 atgcaagggc ataattgtag ctgtgaacat gccaggggtg cattcacatt cctgggtacc
 2520
 cagtgtctgat ggggtgtgcc cactggggga catgtccttg gcgtgcttcc tcagagtggc
 2580
 ttttctcca ttaatacata tatgagtact gaagaattaa ttgcatagc tgctttgcag
 2640
 tggtttcaga ggcagatctg agaagattaa aaaaaaatct caatgtatca gcttttttta
 2700
 aaggacatta ctagaaaatt aaacagtatt ttttaacaaa aaaaaaaa
 2748

<210> 5896

<211> 261

<212> PRT

<213> Homo sapiens

<400> 5896

Ala Thr Ile Arg Lys Met Leu Ser Phe Trp Trp Pro Leu Xaa Leu Ile
 1 5 10 15
 Leu Ala Thr Gln Arg Ile Ser Arg Pro Ile Val Asn Leu Phe Val Ser
 20 25 30
 Arg Asp Leu Gly Gly Ser Ser Ala Ala Thr Glu Ala Val Ala Ile Leu
 35 40 45
 Thr Ala Thr Tyr Pro Val Gly His Met Pro Tyr Gly Trp Leu Thr Glu
 50 55 60
 Ile Arg Ala Val Tyr Pro Ala Phe Asp Lys Asn Asn Pro Ser Asn Lys
 65 70 75 80
 Leu Val Ser Thr Ser Asn Thr Val Thr Ala Ala His Ile Lys Lys Phe
 85 90 95
 Thr Phe Val Cys Met Ala Leu Ser Leu Thr Leu Cys Phe Val Met Phe
 100 105 110
 Trp Thr Pro Asn Val Ser Glu Lys Ile Leu Ile Asp Ile Ile Gly Val
 115 120 125
 Asp Phe Ala Phe Ala Glu Leu Cys Val Val Pro Leu Arg Ile Phe Ser
 130 135 140
 Phe Phe Pro Val Pro Val Thr Val Arg Ala His Leu Thr Gly Trp Leu
 145 150 155 160
 Met Thr Leu Lys Lys Thr Phe Val Leu Ala Pro Ser Ser Val Leu Arg
 165 170 175
 Ile Ile Val Leu Ile Ala Ser Leu Val Val Leu Pro Tyr Leu Gly Val

	180		185		190
His Gly Ala Thr Leu Gly Val Gly Ser Leu Leu Ala Gly Phe Val Gly					
195		200		205	
Glu Ser Thr Met Val Ala Ile Ala Ala Cys Tyr Val Tyr Arg Lys Gln					
210		215		220	
Lys Lys Lys Met Glu Asn Glu Ser Ala Thr Glu Gly Glu Asp Ser Ala					
225		230		235	240
Met Thr Asp Met Pro Pro Thr Glu Glu Val Thr Asp Ile Val Glu Met					
	245		250		255
Arg Glu Glu Asn Glu					
260					

<210> 5897
 <211> 1930
 <212> DNA
 <213> Homo sapiens

<400> 5897
 ngcgccgata agaggcagca gtctcggaagc cggttcttga gagatccggc gcgcgtcttc
 60
 caccacaatg cctggtaatc actctgcccc ttgcgccggc ctgtgcgtga ccctctgttc
 120
 cgccgcctcg gagcattcog aaaagcccct gacogccggc cagagtcaa gctgccttac
 180
 ccggccacga gtcaagctgc cctaccggag gcactctcca aggggagaga aactcctagg
 240
 ccagcgactc accctgccog cagccaggac gtgaagcccc taagctgccc gtttgatttt
 300
 ctccagggaca atgtggagtg gtccgaagag caagccggcg cgccggagag aaaaagccag
 360
 gagaacagta tccagcgggt gtgccaggag aaacaagttg attatgagat caatgccac
 420
 aaatactgga atgacttcta caaaatccac gaaaatgggt ttttcaagga tagacattgg
 480
 cttttttaccg aattccctga gctggcacct agccaaaatc aaatcattt gaaggactgg
 540
 ttcttgagga acaagagtga agtatgtgaa ttagaanaa atgaggatgg acctggttta
 600
 ataattgaag aacagacaa gtgttctctc aagagccttg aacataaaac acagacacct
 660
 cctgtggagg agaattgaac tcagaaaatt agtgacctgg aaatttgtgc tgatgagttt
 720
 cctggatcct cagccacctc ccgaatactg gaggttggtc gtggtgtggg aaacacagtc
 780
 ttccaattt tacaaacgaa caatgaccca ggactctttg tttattgtcg tgattttttc
 840
 tccacagcta tagaactggt ccagacaaat tcagaatatg atccttctcg gtgttttgcc
 900
 ttgtttcacg acctgtgtga tgaagagaag agttaccagg tgcccaaggg cagtcttgat
 960
 attatcattc tcatatttgt tctttcagca atgtgtccag acaagatgca gaaggctac
 1020
 aacaggctga gcaggcttct gaaacctggg gggatggtag ttctgcgaga ttacggccgc
 1080

tatgacatgg ctcagcttcg gtttaaaaaa ggtcagtgtc tatctggaaa tttctacgtg
 1140
 agaggtgatg gaaccagagt ttactttctc acacaagagg aactggacac gcttttcacc
 1200
 actgctggac tggaaaaagt tcagaaacct gtggatcgcc gactgcaggt gaaccgagga
 1260
 aagcaactga caatgtaccg ggtttggatt cagtgc aaat actgcaagcc ccttctgtcc
 1320
 agcaccagct gagaggcacc tgctgccaac acgatgcaag cccatttgtt ttccgggctt
 1380
 ttttaaaaaa aaaattgtag cactggcggt ggtgcatgcc tgtaatccca gccactcagg
 1440
 aggctgagggc ggggaggatc cattgagccc agcagtc aa cctgggcaaa atagtgcagg
 1500
 accctgtatc tgaagaataa aataaaaaata aaagaatata aatgaggtct cgttgatgtt
 1560
 ggacaattca agaattcaga cttgaacctt aaacctagga aaagtactt tgtatcagga
 1620
 ttctaacaat tatgcttcat atttgtgaag tcttttaaaa cataattttc tcaagttctt
 1680
 tctttgagat ctcaatctgt cttagcattt tgtaactaat aactgaaatt ttattcaaag
 1740
 gaattgtaaa ccttaaacca ccaattttatt tccatgtgaa aaagtgttat atatgcagaag
 1800
 tgttttttga ttgtaattgc gttaaatctt ttgagagtgt aaatgccggc aaagtcttcg
 1860
 tctgttcacc taggctggag tgcagtggtt cgatctcgcc tcaactgcaac ctctgcctcc
 1920
 agggntcaag
 1930

<210> 5898

<211> 242

<212> PRT

<213> Homo sapiens

<400> 5898

Met	Glu	Glu	Gln	His	Lys	Cys	Ser	Ser	Lys	Ser	Leu	Glu	His	Lys	Thr
1				5					10					15	
Gln	Thr	Pro	Pro	Val	Glu	Glu	Asn	Val	Thr	Gln	Lys	Ile	Ser	Asp	Leu
			20					25						30	
Glu	Ile	Cys	Ala	Asp	Glu	Phe	Pro	Gly	Ser	Ser	Ala	Thr	Tyr	Arg	Ile
			35					40					45		
Leu	Glu	Val	Gly	Cys	Gly	Val	Gly	Asn	Thr	Val	Phe	Pro	Ile	Leu	Gln
			50				55				60				
Thr	Asn	Asn	Asp	Pro	Gly	Leu	Phe	Val	Tyr	Cys	Cys	Asp	Phe	Ser	Ser
65					70				75					80	
Thr	Ala	Ile	Glu	Leu	Val	Gln	Thr	Asn	Ser	Glu	Tyr	Asp	Pro	Ser	Arg
					85				90					95	
Cys	Phe	Ala	Phe	Val	His	Asp	Leu	Cys	Asp	Glu	Glu	Lys	Ser	Tyr	Pro
					100				105				110		
Val	Pro	Lys	Gly	Ser	Leu	Asp	Ile	Ile	Ile	Leu	Ile	Phe	Val	Leu	Ser
			115				120						125		
Ala	Ile	Val	Pro	Asp	Lys	Met	Gln	Lys	Ala	Ile	Asn	Arg	Leu	Ser	Arg

130	135	140
Leu Leu Lys Pro Gly Gly Met Val Leu Leu Arg Asp Tyr Gly Arg Tyr		
145	150	155
Asp Met Ala Gln Leu Arg Phe Lys Lys Gly Gln Cys Leu Ser Gly Asn		160
165	170	175
Phe Tyr Val Arg Gly Asp Gly Thr Arg Val Tyr Phe Phe Thr Gln Glu		
180	185	190
Glu Leu Asp Thr Leu Phe Thr Thr Ala Gly Leu Glu Lys Val Gln Asn		
195	200	205
Leu Val Asp Arg Arg Leu Gln Val Asn Arg Gly Lys Gln Leu Thr Met		
210	215	220
Tyr Arg Val Trp Ile Gln Cys Lys Tyr Cys Lys Pro Leu Leu Ser Ser		
225	230	235
Thr Ser		240

<210> 5899

<211> 1589

<212> DNA

<213> Homo sapiens

<400> 5899

```

nngctagcag cccgcacgtt ggacacaccc tgcaatgaga tgaacaccga caccttcctc
60
gaggagatta acaaagttgg aaaggaaactg gggatcatcc caaccatcat ccgggatgag
120
gaactgaaga cgagaggatt tggaggaaac tatgggggtg gcaaagccgc cctgcacccc
180
ccagcccttg ccgtctctcag ccacacccca gatggagcca cgcagaccat cgcctgggtg
240
ggcaaaaggca tcgtctatga cactggaggc ctcagcatca aagggaagac taccatgccg
300
gggatgaagc gagactgcgg ggggtgctgc gccgtccttg gggccttcag agccgcaatc
360
aagcagggtt tcaaagacaa cctccacgct gtgttctgct tggctgagaa ctcggtgggg
420
cccaatgcga caaggccaga tgacatccac ctgctgtact caggggaagc ggtggaatc
480
aacaacacgg atgccgaagg caggctgggt ctggcagatg gcgtgtccta tgcttgcaag
540
gacctggggg ccgacatcat cctggacatg gccaccctga ccgggggtca gggcattgcc
600
acagggaagt accacgccgc ggtgctcacc aacagcgtg agtgggaggc ccgctgtgtg
660
aaggcgggca ggaagtgtgg ggacctgggt caccgcgtg tctactgcc cgagctgcac
720
ttcagcagat tcacctcagc tgtggcggac atgaagaact cagtggcgga ccgagacaac
780
agccccagct cctgtgctgg cctcttcac gcctcacaca tcggcttcga ctggccggga
840
gtctgggtcc acctggacat tgctgcacgg gtgcatgctg gtgagcgagc cacaggcttc
900
ggtgtggccc tctgtctggc gctcttcggc cgtgctctg aggaacctct gctgaacctg
960

```

gtgtcccccac tgggctgtga ggtggatgtc gaggaggggg acctggggag ggactccaag
 1020
 agacgcagggc ttgtgtgagc ctctcgcttc ggccctgaca aacggggatc ttttacctca
 1080
 ctttgactgt attaatTTTA agcaattgaa agattgccct tcatatgggt tttgtttgtg
 1140
 ctttctggtc gtcagcgtgg tgggtgaaac agctgaagtt ttaggagaca gcttagggtt
 1200
 tgggtcgggc cacggggagg ggaccgggaa gcgctggggc ttgtttctgt ttgttactta
 1260
 caggactgag acatcttctg taaactgcta ccctgggggc cttctgcacc ccgggggtgag
 1320
 gcctcctgcc tgcctggtgc cctgtcccag ccccgagtc tgtgcagggc acctgcgtgg
 1380
 ctgacagcca ggctcttact ccagccgggg ctgccagcgc atccagccag ccagccctg
 1440
 tgaaagatgg agctgacttg ctgcagggga cctgatttat agggcaagag aagtacact
 1500
 ccggcctctc agaattcact tgaggttcaa ttaaatacag tcacaccgcc ccctcaaaaa
 1560
 aaaaaaaaaa aaaaaaacaa aaaaaaaaaa
 1589

<210> 5900

<211> 345

<212> PRT

<213> Homo sapiens

<400> 5900

Xaa Leu Ala Ala Arg Ile Val Asp Thr Pro Cys Asn Glu Met Asn Thr
 1 5 10 15
 Asp Thr Phe Leu Glu Glu Ile Asn Lys Val Gly Lys Glu Leu Gly Ile
 20 25 30
 Ile Pro Thr Ile Ile Arg Asp Glu Leu Lys Thr Arg Gly Phe Gly
 35 40 45
 Gly Ile Tyr Gly Val Gly Lys Ala Ala Leu His Pro Pro Ala Leu Ala
 50 55 60
 Val Leu Ser His Thr Pro Asp Gly Ala Thr Gln Thr Ile Ala Trp Val
 65 70 75 80
 Gly Lys Gly Ile Val Tyr Asp Thr Gly Gly Leu Ser Ile Lys Gly Lys
 85 90 95
 Thr Thr Met Pro Gly Met Lys Arg Asp Cys Gly Gly Ala Ala Val
 100 105 110
 Leu Gly Ala Phe Arg Ala Ala Ile Lys Gln Gly Phe Lys Asp Asn Leu
 115 120 125
 His Ala Val Phe Cys Leu Ala Glu Asn Ser Val Gly Pro Asn Ala Thr
 130 135 140
 Arg Pro Asp Asp Ile His Leu Leu Tyr Ser Gly Lys Thr Val Glu Ile
 145 150 155 160
 Asn Asn Thr Asp Ala Glu Gly Arg Leu Val Leu Ala Asp Gly Val Ser
 165 170 175
 Tyr Ala Cys Lys Asp Leu Gly Ala Asp Ile Ile Leu Asp Met Ala Thr
 180 185 190
 Leu Thr Gly Ala Gln Gly Ile Ala Thr Gly Lys Tyr His Ala Ala Val

195	200	205
Leu Thr Asn Ser Ala Glu Trp	Glu Ala Ala Cys Val	Lys Ala Gly Arg
210	215	220
Lys Cys Gly Asp Leu Val His	Pro Leu Val Tyr	Cys Pro Glu Leu His
225	230	235
Phe Ser Glu Phe Thr Ser Ala Val	Ala Asp Met	Lys Asn Ser Val Ala
245	250	255
Asp Arg Asp Asn Ser Pro Ser Ser	Cys Ala Gly	Leu Phe Ile Ala Ser
260	265	270
His Ile Gly Phe Asp Trp Pro	Gly Val Trp Val	His Leu Asp Ile Ala
275	280	285
Ala Pro Val His Ala Gly Glu	Arg Ala Thr Gly	Phe Gly Val Ala Leu
290	295	300
Leu Leu Ala Leu Phe Gly Arg	Ala Ser Glu Asp	Pro Leu Leu Asn Leu
305	310	315
Val Ser Pro Leu Gly Cys Glu	Val Asp Val Glu	Gly Asp Leu Gly
325	330	335
Arg Asp Ser Lys Arg Arg Arg	Leu Val	
340	345	

<210> 5901

<211> 984

<212> DNA

<213> Homo sapiens

<400> 5901

ncggccgcgcg cagccatgac cgtggagttc gaggagtgcg tcaaggactc cccgcgcttc
 60
 agggcgacca ttgacgaggt ggagacggac gtggtggaga ttgaggccaa actggacaag
 120
 ctggtgaagc tgtgcagtgg catggtggaa gccggttaagg cctacgtcag caccagcagg
 180
 cttttcgtga gcggcgctcc cgacctgtcc cagcagtgcc agggcgacac cgtcatctcg
 240
 gaatgtctgc agaggttcgc tgacagccta caggaggtgg tgaactacca catgatcctg
 300
 ttgaccagg cccagaggtc cgtgcggcag cagctccaga gctttgtcaa agaggatgtg
 360
 cggaaagtca aggagacaaa gaagcagttt gacaaggctc gggaggacct ggagctgtcc
 420
 ctggtgagga acgcccaggc cccgaggcac cggcccccag aggtggagga agccaccggg
 480
 gccctcacc caccaggaa gtgcttcgc caccctggcac tggactatgt gctccagatc
 540
 aatgttctgc aggccaagaa gaagtttgag atcctggact ctatgctgtc cttcatgcac
 600
 gccagctcca gcttcttcca gcagggtac agcctcctgc accagctgga cccctacatg
 660
 aagaagctgg cagccgagct ggaccagctg gtgatcgact ctgcggtgga aaagcgtgag
 720
 atggagcgaa agcacgccgc catccagcag cggaccctta gggacttctc ctacgatgag
 780
 tcgaaagtgg agtttgacgt ggacgcgccc agtgggggtg tgatggaggg ctacctcttc
 840

aagagggccca gcaacncttt caagacatgg aaccggcgct ggtttccat tcagaacagc
 900
 cagctggtct accagaagaa gctcaaggat gccctcaccg tgggtggtga tgacctccgc
 960
 ctgtgctctg tgaagccgtg tgag
 984

<210> 5902

<211> 328

<212> PRT

<213> Homo sapiens

<400> 5902

Xaa	Ala	Ala	Ala	Met	Thr	Val	Glu	Phe	Glu	Glu	Cys	Val	Lys	Asp
1				5					10				15	
Ser	Pro	Arg	Phe	Arg	Ala	Thr	Ile	Asp	Glu	Val	Glu	Thr	Asp	Val
			20					25				30		
Glu	Ile	Glu	Ala	Lys	Leu	Asp	Lys	Leu	Val	Lys	Leu	Cys	Ser	Gly
		35					40					45		
Val	Glu	Ala	Gly	Lys	Ala	Tyr	Val	Ser	Thr	Ser	Arg	Leu	Phe	Val
	50					55					60			
Gly	Val	Arg	Asp	Leu	Ser	Gln	Gln	Cys	Gln	Gly	Asp	Thr	Val	Ile
	65				70					75			80	
Glu	Cys	Leu	Gln	Arg	Phe	Ala	Asp	Ser	Leu	Gln	Glu	Val	Val	Asn
			85						90				95	
His	Met	Ile	Leu	Phe	Asp	Gln	Ala	Gln	Arg	Ser	Val	Arg	Gln	Gln
		100						105					110	
Gln	Ser	Phe	Val	Lys	Glu	Asp	Val	Arg	Lys	Phe	Lys	Glu	Thr	Lys
		115				120						125		
Gln	Phe	Asp	Lys	Val	Arg	Glu	Asp	Leu	Glu	Leu	Ser	Leu	Val	Arg
		130				135					140			
Ala	Gln	Ala	Pro	Arg	His	Arg	Pro	His	Glu	Val	Glu	Glu	Ala	Thr
	145				150					155				160
Ala	Leu	Thr	Leu	Thr	Arg	Lys	Cys	Phe	Arg	His	Leu	Ala	Leu	Asp
		165						170					175	
Val	Leu	Gln	Ile	Asn	Val	Leu	Gln	Ala	Lys	Lys	Phe	Glu	Ile	Leu
		180						185				190		
Asp	Ser	Met	Leu	Ser	Phe	Met	His	Ala	Gln	Ser	Ser	Phe	Phe	Gln
		195					200					205		
Gly	Tyr	Ser	Leu	Leu	His	Gln	Leu	Asp	Pro	Tyr	Met	Lys	Lys	Leu
	210					215					220			
Ala	Glu	Leu	Asp	Gln	Leu	Val	Ile	Asp	Ser	Ala	Val	Glu	Lys	Arg
	225				230					235				240
Met	Glu	Arg	Lys	His	Ala	Ala	Ile	Gln	Gln	Arg	Thr	Leu	Arg	Asp
		245							250				255	
Ser	Tyr	Asp	Glu	Ser	Lys	Val	Glu	Phe	Asp	Val	Asp	Ala	Pro	Ser
		260						265				270		
Val	Val	Met	Glu	Gly	Tyr	Leu	Phe	Lys	Arg	Ala	Ser	Asn	Xaa	Phe
		275					280					285		
Thr	Trp	Asn	Arg	Arg	Trp	Phe	Ser	Ile	Gln	Asn	Ser	Gln	Leu	Val
	290					295					300			
Gln	Lys	Lys	Leu	Lys	Asp	Ala	Leu	Thr	Val	Val	Val	Asp	Asp	Leu
	305				310					315				320
Leu	Cys	Ser	Val	Lys	Pro	Cys	Glu							

325

<210> 5903

<211> 3734

<212> DNA

<213> Homo sapiens

<400> 5903

ctctgggctc caagggtcacg ggaggccagc ctcccttcct cccagctgcc tcctcctggc
60
aggggacctc tggcacacgc tccatgcccg cctgcccttc cagatctgtc cccaagccaa
120
gcagggggacc tcacttaatc ccaattatgt aatctgcaat ttaaacagtt ggcccatgag
180
gaggcgcttg gagccacgcc caggagtggg ggcaaaagga cccagctggg tcagggtgga
240
caaaactaggc ttggcctctt gcctatagtg gccaccactc ctcaagcccc agccagcacg
300
atgagcggca gagtgcggca tctgagcccc aggcagaagg aggcattggc caagtcttcg
360
gagaatgtcc aggatgtgct gccggccctg ccgaatccag atgactattt tctcctgcgt
420
tggctccgag ccagaagctt cgacctgcag aagtcggagg ccatgtcccg gaagcatgtg
480
gagttccgaa agcaaaaagga cattgacaac atcattagct ggcaacctcc agaggtgac
540
caacagtatc tgtcaggggg tatgtgtggc tatgacctgg atggtgccc agtctggtac
600
gacataattg gacctctgga tgccaagggt ctccctgctg cagcctccaa gcaggatatg
660
atccggaaag gcatcaaagt ctgtgagctg ctgttgcatg agtgtgagct gcagactcag
720
aagctgggca ggaagatcga gatggcgctg atggtgtttg acatggaggg gctgagcctg
780
aaacacctgt ggaagccagc tgtggaggtc taccagcagt tttttagcat cctggaagca
840
aattatcctg agaccctgaa gaatttaatt gttattcgag ccccaaaact gttccccatg
900
gccttcaact tgggtcaagtc gttcatgagt gaggacactc gtaagaagat catggtcctg
960
ggagcaaatt ggaaggaggt ttactgaaa catatcagcc ctgaccaggt gcctgtggag
1020
tatgggggca ccatgactga cctgatgga aaccccaagt gcaaatccaa gatcaactac
1080
gggggtgaca tcccagga gttattatgt cgagaccagg tgaacagca gttatgaacac
1140
agcgtgcaga tttcccgtag ctccctccaa caagtggagt atgagatcct ctccctggc
1200
tgtgtcctca ggtggcagtt tctgtgagat ggagcggatg ttggttttgg gattttcctg
1260
aagaccaaga tgggagagag gcagcgggca ggggagatga cagaggtgct gcccaaccag
1320
aggtacaact cccacctggt cctgaagat gggaccctca cctgcagtga tctggcatc
1380

tatgtcctgc ggtttgacaa cacctacagc ttcattcatg ccaagaaggt caatttcact
1440
gtggagggtcc tgcttcacaga caaagcctca gaagagaaga tgaacagctg gggggcaggc
1500
accccgaaat aacaccttct cctatagcag gcctggcccc ctcaagtgtct cctgttcaat
1560
ttctacccct tgtagcagtc attttcgcac aacctgaag cccaagaaa ctgggctgga
1620
ggacagacct caggagcttt catttcagtt aggcagagga agagcgactg cagtgggtct
1680
ccgtgtctat caaataccta aggagtcocc aggagctggc tggccatcgt gataggatct
1740
gtctgtcctg taaactgtgc caacttcacc tgtccaggga cagcgaagct gggggtggcg
1800
gggggcatgt accacagggg gccagcaggg aaaaaaatta gaaaagggtg aaagattggg
1860
acttaacact tcaggggaagt cagctgccgg ggagaaactt gctcctaaat gaacacataa
1920
gtttagatcg caatgaggag tagcagggta gctgggttgc agagttagcg tggggatcag
1980
aaactcttcc aaacatttta gcactgaggg tggggtagct tttggctttt cccaggtctc
2040
aggaggtggc ctgagtcagc acacatcttc ccactcggtg gacaggctgg cctctccctc
2100
actttgagac tttggcaact cctgggccac acggcctgcc tctttgatta ctaatgattg
2160
tcagtgaact agagcttcct gggacttcgg gtaccacacc gctgttctcc atgcaaacaa
2220
agcgccaggg aaatgaccca cagggatcgc agctgcaggg agggccaggg aggttggggg
2280
tgggagtga tgcataaaag agatcgcca gtgccctttt cagtgcctacc ggcctctcac
2340
caagcagtc tcctatgtgag caaccccgag acaaaaatgc taagtgggat caagagagca
2400
gcactcggag aggggttttg ccagtcctgag tgtcccggcg tgcccgcctc cccgtctctc
2460
gactgacctg agcaaggctc tactaagcag tcccatctct gtgggaggcg tgcaacgcgt
2520
gcaggaggtt caggtgccgg tcggcgtagc caggcctgga ggccccccag gcaggaggcc
2580
gccccaaagg ggggccggcg tctcgagac taggggctgg gggcgccca acagcgccctc
2640
gaaaccacag cccttacctc aatccacga gccccgcctc cgaaccacag gtgctgggct
2700
ttagagaaca tgggaaggcg gccccagacc tggcggaac gcctttccct cagagccagg
2760
ccccggcccc gtctgggaag ctcatcttgc gaagctgagg gagctcaggg caaaggccag
2820
gctagcgcg accggaaggg gccgaggctg caggggcctc tgccagaacg ctcaagacat
2880
ccggcctg gtttacaacg ctgttaggaa aattaaccaa tgaataaagc aacgttcagt
2940
gcgcagggag tgaattcaa tgcccacgc taggctcctc gctgcctctc actcaagagg
3000

cccaaactca gacggcggtca gggacccgga ccagcagcc gtttcacgcc aatagatagg
 3060
 gcgcattgcgc agaaatcctc ctgcgtctct tagcgtgagc ttcccaagg ggcacgcccc
 3120
 agcttgctt ctgattgggtc cagctgggtg gttgtcttcc gccatctttg atcaggggac
 3180
 taaggatgct cccgacggcc ttcacagtga cggcggagac cctgccccgc cagctgctca
 3240
 gtacgtgcgc cgtagcccg gtagccaag tgtgagtcgc ggcgagcgcc tgcggagcta
 3300
 gcactgggcc cagaatgaga gggaggcgga ggagcagcga tcacgtggtt ttagggaactg
 3360
 tctaataatt ccacgccagc attgccgggtg ttccaggggg tgggaacgcg tgcgttcccc
 3420
 atcaactttt ctcccacca ccacctccc caacctacaa gcccagctca gcttgaggta
 3480
 actgtgacc ggactgtcct atacagccct acaagacaga gggcctagg gctgaaagcg
 3540
 ggggcctccg tagggagcca gcgggggcct caatagttac tcattttctc tacctttgat
 3600
 gaaaataaga gctaattctt aataaggcct accgggtatc acgaaaaaac cctgtgctta
 3660
 ctattatact ttgggttggt gcaaagatta aaggaaataa gcggtgcaaa gcgcttaaaa
 3720
 aaaaaaaaaa aaaa
 3734

<210> 5904

<211> 308

<212> PRT

<213> Homo sapiens

<400> 5904

Met Ser Gly Arg Val Gly Asp Leu Ser Pro Arg Gln Lys Glu Ala Leu
 1 5 10 15
 Ala Lys Phe Arg Glu Asn Val Gln Asp Val Leu Pro Ala Leu Pro Asn
 20 25 30
 Pro Asp Asp Tyr Phe Leu Leu Arg Trp Leu Arg Ala Arg Ser Phe Asp
 35 40 45
 Leu Gln Lys Ser Glu Ala Met Leu Arg Lys His Val Glu Phe Arg Lys
 50 55 60
 Gln Lys Asp Ile Asp Asn Ile Ile Ser Trp Gln Pro Pro Glu Val Ile
 65 70 75 80
 Gln Gln Tyr Leu Ser Gly Gly Met Cys Gly Tyr Asp Leu Asp Gly Cys
 85 90 95
 Pro Val Trp Tyr Asp Ile Ile Gly Pro Leu Asp Ala Lys Gly Leu Leu
 100 105 110
 Leu Ser Ala Ser Lys Gln Asp Met Ile Arg Lys Gly Ile Lys Val Cys
 115 120 125
 Glu Leu Leu Leu His Glu Cys Glu Leu Gln Thr Gln Lys Leu Gly Arg
 130 135 140
 Lys Ile Glu Met Ala Leu Met Val Phe Asp Met Glu Gly Leu Ser Leu
 145 150 155 160
 Lys His Leu Trp Lys Pro Ala Val Glu Val Tyr Gln Gln Phe Phe Ser


```

165      170      175
Ile Leu Glu Ala Asn Tyr Pro Glu Thr Leu Lys Asn Leu Ile Val Ile
180      185      190
Arg Ala Pro Lys Leu Phe Pro Met Ala Phe Asn Leu Val Lys Ser Phe
195      200      205
Met Ser Glu Asp Thr Arg Lys Lys Ile Met Val Leu Gly Ala Asn Trp
210      215      220
Lys Glu Val Leu Leu Lys His Ile Ser Pro Asp Gln Val Pro Val Glu
225      230      235
Tyr Gly Gly Thr Met Thr Asp Pro Asp Gly Asn Pro Lys Cys Lys Ser
245      250      255
Lys Ile Asn Tyr Gly Gly Asp Ile Pro Arg Lys Tyr Tyr Val Arg Asp
260      265      270
Gln Val Lys Gln Gln Tyr Glu His Ser Val Gln Ile Ser Arg Gly Ser
275      280      285
Ser Gln Gln Val Glu Tyr Glu Ile Leu Phe Pro Gly Cys Val Leu Arg
290      295      300
Trp Gln Phe Leu
305

```

<210> 5905

<211> 2280

<212> DNA

<213> Homo sapiens

<400> 5905

```

nngttacttt aaacttttga tgttgttcaa gaacagagta tatcctgggt aggatgtgtt
60
catagctgat gcattctccaa aaattttttc atgaaggcgg ccagcttctg aacgtcttca
120
attgtgacag cattatacag agagsgcccg atgcctccca cagacacgta gaatccttga
180
gaattatcaa taatctcata aattgtttga gatttgatgg agctaagctt ctccatggcc
240
ggggcacctc cattgttttt aatccaactcc agaaccaagc ccatgacgta gatgtctgaaa
300
catggaggcg tgttgtacaa ggagctgttt ccagcctgca ctttgtattc caggaccgag
360
gggcactctc ggaggggcaa cccagcagg tcatacgcga caatcaccac ggtgacccca
420
gcagagccaa cattcttctg ggcaccagca aaaatcacac caaacttga aatccact
480
ggcttggaaca ggaagtgtga ggacatgta caaaccagta ctgctccctt gacatcgggt
540
ataaagtc aaactccacac atgcaccgtc tcatttgcgc aataatacac gtaggaggca
600
tcctgggtga ggtttgactt tatacccgat gtcaaggagg cagtactggt ttgtgacatg
660
tcctcaaact tcctgtccaa gccagtgatg gtttccaaat ttagggtgat ttttctggtt
720
gccacagaaga atgttggtct tgctggggtc accgttggtg ttgtccgtga tgacctgtg
780
gggtttgccc tcgagagtg ccctcgggtc ctggaataca aggtgcaggc tggaaacagc
840

```

tccttgatca acacgcctcc atgtttcagc atctacgtca tgggcttggt tctggagtgg
 900
 attaaaaaca atggaggtgc cgcggccatg gagaagctta gctccatcaa atctctaaca
 960
 atttatgaga ttattgataa ttctcaagga ttctacgttt gtccagtga gccccaaat
 1020
 agaagcaaga tgaatatcc attccgcatg ggcaatgcca aaggagatga tgctttagaa
 1080
 aaaagatttc ttgataaagc tcttgaactc aatatgttgt ccttgaaggc gcataggtct
 1140
 gtgggaggga tccgggcctc tctgtataat gctgtcaca ttgaagacgt tcagaagctg
 1200
 gccgccttca tgaaaaaatt ttggagatg catcagctat gaacacatcc taaccaggat
 1260
 atactctgtt cttgaacaac atacaaagtt taaagtaact tggggatggc taaaaaagt
 1320
 taacacagta tttttctcaa atgaacatgt ttattgcaga ttcttctttt ttgaagaac
 1380
 aacagcaaaa catccacaac tctgtaaagc tgggtggacc taatgtcacc ttaattctga
 1440
 cttgaactgg aagcatttta agaaatcttg ttgcttttct aacaaatccc cgcgtatttt
 1500
 gcctttgtct ctacttttct tagtttagatt tcaaatctgc ctgtggactt aataatgcaa
 1560
 gttgcgatta attatttctg gagtcatggg aacacacagc acagagggta ggggggcctt
 1620
 ctagggtgct aatctacaca tctgtggggt ctctggggtt cagcggctgt tgattcaagg
 1680
 tcaacattga ccattggagg agtgggttaa gagtgcagg cgaagggcaa actgtagatc
 1740
 gatctttatg ctgtttattc aggagaagtg acatacttta tatatgttta tattgcaag
 1800
 gtctgttttt aataccatat actttatatt tctatacatt tatatttcta ataatacagt
 1860
 tatcactgat atatgtagac acttttagaa ttatttaaat ccttgacctt gtgcattata
 1920
 gcattccatt agcaagagtt gtaccccttc cccagtcctc gccttcctct ttttaagctg
 1980
 ttttatgaaa aagacctaga agttcttgat tcatttttac cattctttcc ataggtagaa
 2040
 gagaaggttg attggttggt tgtttttcaa ttatgccatt aaactaaca tttctgttaa
 2100
 attaccctat cctttgttct ctactgtttt ctttgtaatg tatgactacg agagtatac
 2160
 tttgtgaaa agtctttccc ctattgttta tctattgtca gtattttatg ttgaatatgt
 2220
 aaagaacatt aaagtccata aacatctaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa
 2280

<210> 5906

<211> 215

<212> PRT

<213> Homo sapiens

<400> 5906

```

Glu Ala Ser Gly Leu Arg Phe Asp Phe Ile Pro Asp Val Lys Gly Ala
 1              5              10              15
Val Leu Val Cys Asp Met Ser Ser Asn Phe Leu Ser Lys Pro Val Asp
              20              25              30
Val Ser Lys Phe Arg Val Ile Phe Ala Gly Ala Gln Lys Asn Val Gly
              35              40              45
Ser Ala Gly Val Thr Val Val Ile Val Arg Asp Asp Leu Leu Gly Phe
              50              55              60
Ala Leu Arg Glu Cys Pro Ser Val Leu Glu Tyr Lys Val Gln Ala Gly
65              70              75              80
Asn Ser Ser Leu Tyr Asn Thr Pro Pro Cys Phe Ser Ile Tyr Val Met
              85              90              95
Gly Leu Val Leu Glu Trp Ile Lys Asn Asn Gly Gly Ala Ala Met
              100             105             110
Glu Lys Leu Ser Ser Ile Lys Ser Leu Thr Ile Tyr Glu Ile Ile Asp
              115             120             125
Asn Ser Gln Gly Phe Tyr Val Cys Pro Val Glu Pro Gln Asn Arg Ser
              130             135             140
Lys Met Asn Ile Pro Phe Arg Ile Gly Asn Ala Lys Gly Asp Asp Ala
145             150             155             160
Leu Glu Lys Arg Phe Leu Asp Lys Ala Leu Glu Leu Asn Met Leu Ser
              165             170             175
Leu Lys Gly His Arg Ser Val Gly Gly Ile Arg Ala Ser Leu Tyr Asn
              180             185             190
Ala Val Thr Ile Glu Asp Val Gln Lys Leu Ala Ala Phe Met Lys Lys
              195             200             205
Phe Leu Glu Met His Gln Leu
              210             215

```

<210> 5907

<211> 1989

<212> DNA

<213> Homo sapiens

<400> 5907

```

nnattggccta aataagggtg taticagctgc ttgatataga gctgataaaa tcttcagcta
60
ggcatacttg aggctgatt acagaagtga ccgtagtcca cccacacacc tgaaatttat
120
ttaagagacc aagctaggct ctctctggcc ttttaggaaga ggactggcat ggagaaatat
180
gttctctact agttctccca agccatggca cgtcccaaca aattctctct ttggttttgc
240
tgctttgcct ggctgtgttt tctattagc cttggttctc aggcttctgg gggagaagct
300
cagattgctg ctatgctga gttggaatct ggggctatgc cttggtcctt gctgcagcat
360
atagatgaga gagacagagc tggcctcctt cccgcgcttt tcaaagtctt atctgttggg
420
cgagggtgggt cacctaggct gcagccagac tccagagctt tgactacat gaagaagctc
480
tataagacat atgctaccaa ggaagggtt cctaaatcca atagaagtca cctctacaac
540

```

actgttcggc tcttcacccc ctgtaccggg cacaagcagg ctctcggaga ccaggtaaca
600
ggaatccttc catcagtggg actgctattt aacctggatc gcattactac cgttgaacac
660
ttactcaagt cagtcttgct gtacaatatc aacaactcag ttctcttttc ctctgctgtc
720
aaatgtgtgt gcaatctaata gataaaggag ccaagtctt tagcaggac tctcggcaga
780
gctccatact catttacctt taactcacag tttgaatttg gaaagaaca caaatggatt
840
cagattgatg tgaccagcct cttcaacct ttagtggcct ccaacaagag aagtattcac
900
atgtctataa attttacttg catgaaagac cagctggagc atccttcagc acagaatggg
960
ttgtttaaca tgactctggg gtccccctca ctgactctat atttgaatga cacaagtgc
1020
caggcttatc acagctggta ttcccttcac tataaaagga ggccttccca gggctctgac
1080
caggagagaa gtctgtctgc ctatcctgtg ggagaagagg ctgctgagga tgggagatct
1140
tcccataccc gtcaccgcag aggtcaggaa actgtcagtt ctgaattgaa gaagcccttg
1200
ggcccagcct ccttcaatct gagtgaatac ttcagacaat ttcttcttcc ccaaatgag
1260
tgtgagctcc atgacttttag acttagcttt agtcagctga agtgggacaa ctggattgtg
1320
gtccgcgaca ggtacaaccc tcgatactgt aaaggggact gtccaagggc agttggacat
1380
cggtatggct ctccagttca cccatggta cagaacatca tctatgagaa gctggactcc
1440
tcagtgccaa gaccgtcatg tgtacctgcc aaatacagcc ccttgagtgt tttgaccatt
1500
gagccgatg gctcaattgc ctataaagag tacgaagata tgatagctac aaagtgcacc
1560
tgtcgtaaac aaatggctct cttaaaacct tgagcctatt tggcaaagta actactgtgt
1620
gcctatgtgt gccttcaaga gaaagcttca tatattaagt ctctaaatgt agcatatgtt
1680
atataaagag gagcctgtgt aggttagtac cttctatggc atctatcagg ataaagggat
1740
aacatcaatt gttgtctacag agcctttttt tatttccaaa tttaaatgaa atataattat
1800
tgtggagaac tttaattttt ttctcttgag tgattttttt tcttttcata ggagctttat
1860
tcttgatagg gaaaaaacct taattagcat caatcctgga tggacttgca gctataaata
1920
ggcaattcag attgctgtag tcttaataga agaataaatt tactgtcaat ggcaaaaaaa
1980
aaaaaaaaa
1989

<210> 5908

<211> 454

<212> PRT

<213> Homo sapiens

<400> 5908

```

Met Ala Arg Pro Asn Lys Phe Leu Leu Trp Phe Cys Cys Phe Ala Trp
 1          5          10          15
Leu Cys Phe Pro Ile Ser Leu Gly Ser Gln Ala Ser Gly Gly Glu Ala
 20          25          30
Gln Ile Ala Ala Ser Ala Glu Leu Glu Ser Gly Ala Met Pro Trp Ser
 35          40          45
Leu Leu Gln His Ile Asp Glu Arg Asp Arg Ala Gly Leu Leu Pro Ala
 50          55          60
Leu Phe Lys Val Leu Ser Val Gly Arg Gly Gly Ser Pro Arg Leu Gln
 65          70          75          80
Pro Asp Ser Arg Ala Leu His Tyr Met Lys Lys Leu Tyr Lys Thr Tyr
 85          90          95
Ala Thr Lys Glu Gly Ile Pro Lys Ser Asn Arg Ser His Leu Tyr Asn
100          105          110
Thr Val Arg Leu Phe Thr Pro Cys Thr Arg His Lys Gln Ala Pro Gly
115          120          125
Asp Gln Val Thr Gly Ile Leu Pro Ser Val Glu Leu Leu Phe Asn Leu
130          135          140
Asp Arg Ile Thr Thr Val Glu His Leu Leu Lys Ser Val Leu Leu Tyr
145          150          155          160
Asn Ile Asn Asn Ser Val Ser Phe Ser Ser Ala Val Lys Cys Val Cys
165          170          175
Asn Leu Met Ile Lys Glu Pro Lys Ser Ser Ser Arg Thr Leu Gly Arg
180          185          190
Ala Pro Tyr Ser Phe Thr Phe Asn Ser Gln Phe Glu Phe Gly Lys Lys
195          200          205
His Lys Trp Ile Gln Ile Asp Val Thr Ser Leu Leu Gln Pro Leu Val
210          215          220
Ala Ser Asn Lys Arg Ser Ile His Met Ser Ile Asn Phe Thr Cys Met
225          230          235          240
Lys Asp Gln Leu Glu His Pro Ser Ala Gln Asn Gly Leu Phe Asn Met
245          250          255
Thr Leu Val Ser Pro Ser Leu Ile Leu Tyr Leu Asn Asp Thr Ser Ala
260          265          270
Gln Ala Tyr His Ser Trp Tyr Ser Leu His Tyr Lys Arg Arg Pro Ser
275          280          285
Gln Gly Pro Asp Gln Glu Arg Ser Leu Ser Ala Tyr Pro Val Gly Glu
290          295          300
Glu Ala Ala Glu Asp Gly Arg Ser Ser His His Arg His Arg Gly
305          310          315          320
Gln Glu Thr Val Ser Ser Glu Leu Lys Lys Pro Leu Gly Pro Ala Ser
325          330          335
Phe Asn Leu Ser Glu Tyr Phe Arg Gln Phe Leu Leu Pro Gln Asn Glu
340          345          350
Cys Glu Leu His Asp Phe Arg Leu Ser Phe Ser Gln Leu Lys Trp Asp
355          360          365
Asn Trp Ile Val Ala Pro His Arg Tyr Asn Pro Arg Tyr Cys Lys Gly
370          375          380
Asp Cys Pro Arg Ala Val Gly His Arg Tyr Gly Ser Pro Val His Thr
385          390          395          400
Met Val Gln Asn Ile Ile Tyr Glu Lys Leu Asp Ser Ser Val Pro Arg

```

			405						410				415		
Pro	Ser	Cys	Val	Pro	Ala	Lys	Tyr	Ser	Pro	Leu	Ser	Val	Leu	Thr	Ile
			420					425					430		
Glu	Pro	Asp	Gly	Ser	Ile	Ala	Tyr	Lys	Glu	Tyr	Glu	Asp	Met	Ile	Ala
		435					440					445			
Thr	Lys	Cys	Thr	Cys	Arg										
		450													

<210> 5909

<211> 4343

<212> DNA

<213> Homo sapiens

<400> 5909

```

nncggccgcg ggagggtcct tgtggcgccg ggcggcgggg tcttcgctgg agagtgggac
60
gcaacgccga gaccgcgagc agaggctcgc cacagccgga tccggcactc agcgaccgga
120
cccaaggatc cgccggggaa caagccacag gagagcgact caggaacaag tgtgggagag
180
gaagcgccgg cggcgccgcc gggcccgggg gtggtgacag caggctctgag gtgcatcat
240
aatacaaaag gactgaagtt ataaaagaga aaagagaagt ttgctgctaa aatgaatctg
300
agcaatatgg aatattttgt gccacacaca aaaaggctact gaagatttac cccccaaaaa
360
aaattgtcaa tgagaaataa agctaactga tatcaaaaag cagagcctgc tctactggcc
420
atcatgcgta aaggggtgct gaaggaccca gagattgccg atctattcta caaagatgat
480
cctgaggaac tttttattgg tttgcatgaa attggacatg gaagttttgg agcagtttat
540
tttgctacaa atgctcacac cagtggagtg gtgccaatta agaagatgct ctatagtggg
600
aagcagaccc atgagaaatg gcaagatatt ctaaaggaag ttaaattttt acgacaattg
660
aagcatccta atactattga gtacaaagcg tgttacttta aagaacacac tgcttggttg
720
gtgatggaat attgcttagg ctcagcctct gatttattag aagttcataa aaaaccactt
780
caggaagtgg agatcgctgc cattactcat ggagccttgc atggactagc ctacctacat
840
tctcatgcat tgattcatag ggatattaaa gcaggaaata ttcttctaac agagccaggt
900
caggtaaaac tagctgattt tggatctgct tcaatggctt ctctgccaac ctctctctg
960
ggcacacctt actggatggc tccagaggtg atcttagcta tggatgaagg acagtatgat
1020
gggaaagtgt atatttggtc acttggcacc acttgatttg aattggcgga acggaagcgg
1080
ccccctttca acatgaatgc aatgagtgcc ttatatcaca ttgcccgaaa tgactcccca
1140
acgttacagt ctaatgaatg gacagactcc tttaggagat ttgttgatta ctgcttcgag
1200

```

aaaatacctc aggaaaggcc aacatcagca gaactattaa ggcattgactt tgttcgacga
1260
gaccggccac tacgtgtcct cattgacctc atacagagga caaaagatgc agttcgtgag
1320
ctagataacc tacagtaccg aaaaatgaaa aaaatacttt tccaagagac acggaatgga
1380
cccttgaatg agtcacagga ggatgaggaa gacagtgaac atggaaccag cctgaacagg
1440
gaaatggaca gcctgggagc caaccattcc attccaagca tgtccgtgag cacaggcagc
1500
cagagcagca gtgtgaacag catgcaggaa gtcattggagc agagcagttc cgaacttgtc
1560
atgatgcagc atgacgaaa cacaatcaat tccagctcct ccgtcgtgca taagaaagat
1620
catgtattca taagggatga gggggggccac ggcgatccca ggcctgagcc gcggcctacc
1680
cagtcagttc agagccaggc cctccactac cggaacagag agcgccttgc cacyatcaaa
1740
tcagcatctt tggttacacg acagatccat gagcatgagc aggagaacga gttgcgggaa
1800
cagatgtcag gttataagcg gatgcggcgc cagcaccaga agcagctgat gcgccctggag
1860
aacaagctga aggctgagat ggacgagcac gcgcctcaagc tacagaagga ggtggagagc
1920
catgccaaac actcgtccat cgagctggag aagctggcca agaagcaagt ggctatcata
1980
gaaaaggagc caaaggtagc tgcagcagat gagaagaagt tccagcaaca gatcttggcc
2040
cagcagaaga aagatttgac aactttctta gaaagtcaga agaagcagta taagatttgt
2100
aaggaaaaaa taaaagagga aatgaatgag gaccatagca ccccaagaa agagaagcaa
2160
gagcggatct tcaaacataa agagaacttg caacacacac aggctgaaga ggaagccac
2220
ctctctcatt caacaggaga ctggactacg accaaaaatt gtcgtttctt caagcgggaa
2280
ataatgatca agcggcacga ggtggagcag cagaacattc gggaggaaat aaataaaaa
2340
aggaccatga aggagatgga gcatgccatg ctaatccggc acgacgagtc caccgcgag
2400
ctagagtaca ggcagctgca caggttacag aagctacgga tggatctgat ccgtttacag
2460
caccagacgg aactggaaaa ccagctggag tacaataaga ggcgagaaa agaactgcac
2520
agaaagcatg tcatggaaact tcggcaacag ccaaaaaact taaaggccat ggaatgcaa
2580
attataaaaac agtttcagga cacttgcaaa gtacagacca aacagtataa agcactcaag
2640
aatcaccagt tggaagttac tccaaagaat gaggacaaaa caatcttaaa gacactgaaa
2700
gatgagcaga caagaaaact tgccattttg gcagagcagt atgaacagag tataaatgaa
2760
atgatggcct ctcaagcgtt acggctagat gaggctcaag aagcagaatg ccaggccttg
2820

aggctacagc tccagcagga aatggagctg ctcaacgcct accagagcaa aatcaagatg
2880
caaacagagg cacaacatga acgtgagctc cagaagctag agcagagagt gtctctgcgc
2940
agagcacacc ttgagcagaa gattgaagag gagctggctg cccttcagaa ggaacgcagc
3000
gagagaataa agaacctatt ggaagggcaa gagcgagaga ttgaaacttt tgacatggag
3060
agccctcagaa tgggatttgg gaatttgggt acattagatt ttcctaagga ggactacaga
3120
tgagattaaa ttttttgcca ttacaaaaa aaaaaaaaa aaagaaaca aaaaaaaaa
3180
cagaccctgc aaaccacat tccccatttt aacgggcgtt gctctcactc tctctctctc
3240
ttactcttac tgacatcgtg tcggactagt gctgtttat tcttactcca tcagggggccc
3300
ccttctctcc cccgtgtcaa ctttcagtgc tggccaaaaa ctggcgtctc tctctattca
3360
cagtacacgt cacagtattg atgtgattca aaatgtttca gtgaaaactt tggagacagt
3420
tttaaaaaa ccaataaacc aacaacaaaa aagtggtatg tatattgctt taagcaatca
3480
ctcattacca ccaatctgtg aaagttaaag aaaaaataat aataataaat gccaaagggg
3540
agagagacac aatatccgca gccttacacc ttaactagct gtgcattatt tttattttat
3600
tttatttttt tggattttat tcatacaggaa taaaaaaa aaagttttat taagatttga
3660
aaatttgata cattttacag aaactaattg tgatgtacat atcagtgggt acatattatt
3720
acttttttgg ggaacggggg tgggtggggt gaagagatct tgtgattttt aagaacctgc
3780
tggcaagagt ttaacttgtc ttcagcatat tctgatttga tcataatcat tttctgctgt
3840
tgcagaggat gtgaatacac ttaaggagct cacagaatcc cagtagaca aattgggctt
3900
tggcaaatcg tgtattttgt gtatagaagg aatttaagga gaggtattac ttattttcat
3960
attgtatttt aactgtttct ctgatcaaat ttttttacct cctcctctg ttctctccca
4020
cctccctcct tttccagttc agtatttggg gtccaacct gtctctcaat cagatcatct
4080
tgatcttttt ctttatctcc ctctcccttc ctaagtccca tttcttggtc ataaatttg
4140
cattatccac actttcaaac tgtgtatttt ettacaataa aaatgatga aaaaaaaaa
4200
ggctttactt cttttgcatg cactttaaaa acaaaacaaa acatttttca ggttccaagg
4260
aagagcatga taactgtcag agcttttaat tatatttcta aataaagtg ttcatcaca
4320
aaaaaaaaa aaaaaaaaaa aaa
4343

<210> 5910

<211> 899

<212> PRT

<213> Homo sapiens

<400> 5910

```

Met Arg Lys Gly Val Leu Lys Asp Pro Glu Ile Ala Asp Leu Phe Tyr
 1           5           10           15
Lys Asp Asp Pro Glu Glu Leu Phe Ile Gly Leu His Glu Ile Gly His
 20           25           30
Gly Ser Phe Gly Ala Val Tyr Phe Ala Thr Asn Ala His Thr Ser Glu
 35           40           45
Val Val Ala Ile Lys Lys Met Ser Tyr Ser Gly Lys Glu Thr His Glu
 50           55           60
Lys Trp Gln Asp Ile Leu Lys Glu Val Lys Phe Leu Arg Gln Leu Lys
 65           70           75           80
His Pro Asn Thr Ile Glu Tyr Lys Gly Cys Tyr Leu Lys Glu His Thr
 85           90           95
Ala Trp Leu Val Met Glu Tyr Cys Leu Gly Ser Ala Ser Asp Leu Leu
100          105          110
Glu Val His Lys Lys Pro Leu Gln Glu Val Glu Ile Ala Ala Ile Thr
115          120          125
His Gly Ala Leu His His Gly Leu Ala Tyr Leu His Ser His Ala Leu Ile
130          135          140
His Arg Asp Ile Lys Ala Gly Asn Ile Leu Leu Thr Glu Pro Gly Gln
145          150          155          160
Val Lys Leu Ala Asp Phe Gly Ser Ala Ser Met Ala Ser Pro Ala Asn
165          170          175
Ser Phe Val Gly Thr Pro Tyr Trp Met Ala Pro Glu Val Ile Leu Ala
180          185          190
Met Asp Glu Gly Gln Tyr Asp Gly Lys Val Asp Ile Trp Ser Leu Gly
195          200          205
Ile Thr Cys Ile Glu Leu Ala Glu Arg Lys Pro Pro Leu Phe Asn Met
210          215          220
Asn Ala Met Ser Ala Leu Tyr His Ile Ala Gln Asn Asp Ser Pro Thr
225          230          235          240
Leu Gln Ser Asn Glu Trp Thr Asp Ser Phe Arg Arg Phe Val Asp Tyr
245          250          255
Cys Leu Gln Lys Ile Pro Gln Glu Arg Pro Thr Ser Ala Glu Leu Leu
260          265          270
Arg His Asp Phe Val Arg Arg Asp Arg Pro Leu Arg Val Leu Ile Asp
275          280          285
Leu Ile Gln Arg Thr Lys Asp Ala Val Arg Glu Leu Asp Asn Leu Gln
290          295          300
Tyr Arg Lys Met Lys Lys Ile Leu Phe Gln Glu Thr Arg Asn Gly Pro
305          310          315          320
Leu Asn Glu Ser Gln Glu Asp Glu Glu Asp Ser Glu His Gly Thr Ser
325          330          335
Leu Asn Arg Glu Met Asp Ser Leu Gly Ser Asn His Ser Ile Pro Ser
340          345          350
Met Ser Val Ser Thr Gly Ser Gln Ser Ser Ser Val Asn Ser Met Gln
355          360          365
Glu Val Met Asp Glu Ser Ser Ser Glu Leu Val Met Met His Asp Asp
370          375          380
Glu Ser Thr Ile Asn Ser Ser Ser Ser Val Val His Lys Lys Asp His

```

```

385          390          395          400
Val Phe Ile Arg Asp Glu Ala Gly His Gly Asp Pro Arg Pro Glu Pro
405
Arg Pro Thr Gln Ser Val Gln Ser Gln Ala Leu His Tyr Arg Asn Arg
420
Glu Arg Phe Ala Thr Ile Lys Ser Ala Ser Leu Val Thr Arg Gln Ile
435
His Glu His Glu Gln Glu Asn Glu Leu Arg Glu Gln Met Ser Gly Tyr
450
Lys Arg Met Arg Arg Gln His Gln Lys Gln Leu Ile Ala Leu Glu Asn
465
Lys Leu Lys Ala Glu Met Asp Glu His Arg Leu Lys Leu Gln Lys Glu
485
Val Glu Thr His Ala Asn Asn Ser Ser Ile Glu Leu Glu Lys Leu Ala
500
Lys Lys Gln Val Ala Ile Ile Glu Lys Glu Ala Lys Val Ala Ala Ala
515
Asp Glu Lys Lys Phe Gln Gln Gln Ile Leu Ala Gln Gln Lys Lys Asp
530
Leu Thr Thr Phe Leu Glu Ser Gln Lys Lys Gln Tyr Lys Ile Cys Lys
545
Glu Lys Ile Lys Glu Glu Met Asn Glu Asp His Ser Thr Pro Lys Lys
565
Glu Lys Gln Glu Arg Ile Phe Lys His Lys Glu Asn Leu Gln His Thr
580
Gln Ala Glu Glu Glu Ala His Leu Leu Thr Ser Thr Gly Asp Trp Thr
595
Thr Thr Lys Asn Cys Arg Phe Phe Lys Arg Lys Ile Met Ile Lys Arg
610
His Glu Val Glu Gln Gln Asn Ile Arg Glu Glu Leu Asn Lys Lys Arg
625
Thr Met Lys Glu Met Glu His Ala Met Leu Ile Arg His Asp Glu Ser
645
Thr Arg Glu Leu Glu Tyr Arg Gln Leu His Thr Leu Gln Lys Leu Arg
660
Met Asp Leu Ile Arg Leu Gln His Gln Thr Glu Leu Glu Asn Gln Leu
675
Glu Tyr Asn Lys Arg Arg Glu Arg Glu Leu His Arg Lys His Val Met
690
Glu Leu Arg Gln Gln Pro Lys Asn Leu Lys Ala Met Glu Met Gln Ile
705
Lys Lys Gln Phe Gln Asp Thr Cys Lys Val Gln Thr Lys Gln Tyr Lys
725
Ala Leu Lys Asn His Gln Leu Glu Val Thr Pro Lys Asn Gln His Lys
740
Thr Ile Leu Lys Thr Leu Lys Asp Glu Gln Thr Arg Lys Leu Ala Ile
755
Leu Ala Glu Gln Tyr Glu Gln Ser Ile Asn Glu Met Met Ala Ser Gln
770
Ala Leu Arg Leu Asp Glu Ala Gln Glu Ala Glu Cys Gln Ala Leu Arg
785
Leu Gln Leu Gln Gln Glu Met Glu Leu Leu Asn Ala Tyr Gln Ser Lys
805
Ile Lys Met Gln Thr Glu Ala Gln His Glu Arg Glu Leu Gln Lys Leu
810

```

```

      820              825              830
Glu Gln Arg Val Ser Leu Arg Arg Ala His Leu Glu Gln Lys Ile Glu
      835              840              845
Glu Glu Leu Ala Ala Leu Gln Lys Glu Arg Ser Glu Arg Ile Lys Asn
      850              855              860
Leu Leu Glu Arg Gln Glu Arg Glu Ile Glu Thr Phe Asp Met Glu Ser
      865              870              875              880
Leu Arg Met Gly Phe Gly Asn Leu Val Thr Leu Asp Phe Pro Lys Glu
      885              890              895
Asp Tyr Arg

```

```

<210> 5911
<211> 645
<212> DNA
<213> Homo sapiens

```

```

<400> 5911
nnaagtacttt aagatggaaa gccagaaaatc cgggtcttgt gcttcgctca cgctgggagc
60
tgtagaccgg agctgttcct attcggcaat cttggctctt cgcagagga tctcatctttg
120
ccgcacgggtg gtactccagc aggtacttca agtccagctt cttcatcttc ccttctcaac
180
agacttcagc ttgatgatga tattgatggg gagactagag atctcttcgt tatagtcgat
240
gatcccaaga agcatgtgtg tacaatggag acttacatca cctataggat caccaccaaa
300
agtactcggg tggagtttga cctgccagaa tattctgttc gtogaagata ccaggatttt
360
gactgggtga ggagcaaact ggaagaatcc cagccactc atctcattcc cctcttctcc
420
gagaagtgtg tggtaaaagg tgttgtggat cgtttttcag aagagtttgt ggagaccaga
480
agaaaagctt tggataaatt tctaaaaaga attacggacc atcctgtgct gtctttcaat
540
gaacacttta atattttcct tactgctaag gacctgaag cctacaagaa gcaagggata
600
gcattgctga ccagaatggg cgagtcagtc aagcacgtca cgcgt
645

```

```

<210> 5912
<211> 211
<212> PRT
<213> Homo sapiens

```

```

<400> 5912
Asp Gly Lys Pro Glu Ile Pro Val Leu Cys Phe Ala His Ala Gly Ser
1      5      10      15
Cys Arg Pro Glu Leu Phe Leu Phe Gly Asn Leu Gly Ser Ser Ala Glu
20      25      30
Asp Leu Ile Leu Pro Asp Gly Gly Thr Pro Ala Gly Thr Ser Ser Pro
35      40      45
Ala Ser Ser Ser Ser Leu Leu Asn Arg Leu Gln Leu Asp Asp Asp Ile

```

```

      50              55              60
Asp Gly Glu Thr Arg Asp Leu Phe Val Ile Val Asp Asp Pro Lys Lys
65              70              75              80
His Val Cys Thr Met Glu Thr Tyr Ile Thr Tyr Arg Ile Thr Thr Lys
      85              90              95
Ser Thr Arg Val Glu Phe Asp Leu Pro Glu Tyr Ser Val Arg Arg Arg
      100             105             110
Tyr Gln Asp Phe Asp Trp Leu Arg Ser Lys Leu Glu Glu Ser Gln Pro
      115             120             125
Thr His Leu Ile Pro Pro Leu Pro Glu Lys Phe Val Val Lys Gly Val
      130             135             140
Val Asp Arg Phe Ser Glu Glu Phe Val Glu Thr Arg Arg Lys Ala Leu
145              150              155              160
Asp Lys Phe Leu Lys Arg Ile Thr Asp His Pro Val Leu Ser Phe Asn
      165             170             175
Glu His Phe Asn Ile Phe Leu Thr Ala Lys Asp Leu Asn Ala Tyr Lys
      180             185             190
Lys Gln Gly Ile Ala Leu Leu Thr Arg Met Gly Glu Ser Val Lys His
      195             200             205
Val Thr Arg
      210

```

<210> 5913

<211> 2495

<212> DNA

<213> Homo sapiens

<400> 5913

```

attttttttt tttttttttt tttttttttt tttttttttt tttttaatct tctcttcttc
60
catttttatg ggagaaaacc aagccactgg ccccggtaca cagcaagtta gtagtaagac
120
tgagattcga accctggtea aacagacttt ccattttggt ccaactgactc agtcttctct
180
tttacacttg aatcagactt ttagttttat ttagtgtttt gagtcacatg ctgtcttccct
240
gtactgtctt gactctttga ctaaactgat ttcacatctt taaaattatg ctttcccttt
300
agggtcattt ttagctcagc tggtgacagc tatttttaaa tgtaacatga cataatatat
360
ttcctaaata atttaaaata atctagcttg agctgctctg aaggtagtgc agttgggtgg
420
gtgcatagag gtagagcctt cccccactct caaggatgct gtgaggggga ttccctaccat
480
gtggtgagtt gggaggtttt cctgaggtcc ttctccatcc tgagactctg gttttccatt
540
ttgtttctca caggccaggg ctttgaccga caettgtttg ctctgcgga tctggcagca
600
gcanaaggga tcattcttgc tgagctctac ctggaccctg catacgggga gataaaccac
660
aatgtctctg ccaagagcac actgagcagc ccagcagtga accnttgtag gttttccctt
720
gtgggtctct atgcttttgg tggtgggtat gctgttcatg acaactggat aggctgcaat
780

```

gtctcttctt acccaggccg caatgcccg gagtttctcc aatgtgtgga gaaggctnta
840
gaagacatgt ttgatgcctt agaaggcaaa tccatcaaaa gttaaacttct gggcagatga
900
aaagctacca tcacttcctc atcatgaaaa ctgggaggcc gggcatgggt gctcatgcct
960
gtaatcccag cattttgaga ggctgaggcg ggtggatcac ttgaggtcag gagtttgaga
1020
ccaacctggc caacatgggt aaaccttgct tctactaaaa atacaaaaat tagctgggtg
1080
tggtggcatg tgcctataat cccagctact tgggaggttg aagcagaatt gcttgaaccc
1140
aggaggtgga ggttgcatgt agctgagatc acaccactgc actccgcctt gggcgacaga
1200
gcgagactgt ctcaaaaaaa caaaaaagaa aaaaaaactg gggcctgtgt agccagtggtg
1260
tgctattctg tgaaaactaat cataagctgc ctaggcagcc agctacaggc ttgagcttta
1320
aattcatggt tttaaagcta aacgtaattt ccacttggga ctagatcaca actgaagata
1380
acaagagatt taagttttta gggcatttaa tcaggaggaa aggtttggaa aactaactca
1440
ggtgtatttta ttgtttaagc agaaataaag tttatatttt gcttgaagat ggttcctaatt
1500
ttcttttaac ctaattccta atcctcacia agatctttcc aacagcaagt tcagtaagtt
1560
caggtaacag tacgtcacca ttggctcttg gctcatttag tgatgggtgg atcgcggttt
1620
catctctgta aacttgccct tgactgggga gataccatct ccttaaaaaat actcttcatt
1680
ttcctaagga gtgaactgct gctgcacgaa ttcttatttg tggaggagat agctgcctcc
1740
ttacttcacc ttcatgcacc agtgacgct gaacaggggc tttattgatg gggcttggga
1800
agctgttaata aagtcacgca tgcagattgt gaaggtttgc tatagccacc aggagacaag
1860
ggtcaaaagga acgagcctct gtgggctctg ctgcttagag tactttgtcc tttctcagtt
1920
cttaagggca actgggaagg aagagggatc agcacttcac aaactggttg gtgacctcat
1980
agattccacc agactcctgg gccttttcat catagtcagt ccagtccttc tctgcagat
2040
taatgtcact gaaggctgtc cctgactcca caccttcagc agcaaaccca gcctcgggct
2100
ggaaatcaac tgggtcaagg ccccggcact caaactccac tattgtcttg aagtctcat
2160
tgtcttcagc attgtaaggc ttgatgggtg tgcttaaaat ctcatggaa tttctcttg
2220
cacacagctt gcacttcttg accatggaag cactgccagc gcccccttc agtgccacac
2280
tgtccatcag ccggatgtac tgccacttgt cogaattctc accacagttg ccacatttca
2340
tcttcaggtg ccaccggaag tcctcgccca cgggcccggg gttggtgatg tcttcagcg
2400

tggtcttgag ttgcagcgcg attttcccca tggtagccct ctccgcccg tgctggctgc
 2460
 ggcccttgcc gttgctttcc ggcgcgtcgt aaaag
 2495

<210> 5914
 <211> 158
 <212> PRT
 <213> Homo sapiens

<400> 5914
 Ser Val Gly Gly Val His Arg Gly Arg Ala Phe Pro His Ser Gln Gly
 1 5 10 15
 Cys Cys Glu Gly Tyr Ser Tyr His Val Val Ser Trp Glu Val Phe Leu
 20 25 30
 Arg Ser Phe Ser Ile Leu Arg Leu Trp Phe Ser Ile Leu Phe Leu Thr
 35 40 45
 Gly Gln Gly Phe Asp Arg His Leu Phe Ala Leu Arg His Leu Ala Ala
 50 55 60
 Ala Xaa Gly Ile Ile Leu Pro Glu Leu Tyr Leu Asp Pro Ala Tyr Gly
 65 70 75 80
 Gln Ile Asn His Asn Val Leu Ser Thr Ser Thr Leu Ser Ser Pro Ala
 85 90 95
 Val Asn Xaa Cys Arg Phe Ala Pro Val Val Ser Asp Ala Phe Gly Val
 100 105 110
 Gly Tyr Ala Val His Asp Asn Trp Ile Gly Cys Asn Val Ser Ser Tyr
 115 120 125
 Pro Gly Arg Asn Ala Arg Glu Phe Leu Gln Cys Val Glu Lys Ala Xaa
 130 135 140
 Glu Asp Met Phe Asp Ala Leu Glu Gly Lys Ser Ile Lys Ser
 145 150 155

<210> 5915
 <211> 457
 <212> DNA
 <213> Homo sapiens

<400> 5915
 taccgaagac toagcaactc cagcctctgt agcattgaag aagagcaccc aatgggtgat
 60
 gaactgggtac agcggattct cttgtcaaca cgaggttatg tcaacttcgt gaatgaagta
 120
 ttccaccagg catttttggt gccttcctgt gagatagctg taacaagaaa agtagttcaa
 180
 gtgtacagaa agtggattct ccaggacaaa cctgtgttca tggaggagcc agatagaaaa
 240
 gatgttgccc aagaagatgc tgaataatta ggattttccg agactgatag caaggaggcc
 300
 tcactctgaaa gttctggtca taaacgtct tccagttggg gacgcacata ctcttcaca
 360
 agtgcaatga gcagagggtg tgtgacagag gaggaata caaatgtgaa agccggcgtc
 420
 caggctttgt tgcaggtatt ttggcgaaac tctgcag
 457

<210> 5916
 <211> 152
 <212> PRT
 <213> Homo sapiens

<400> 5916
 Tyr Arg Arg Leu Ser Asn Ser Ser Leu Cys Ser Ile Glu Glu Glu His
 1 5 10 15
 Arg Met Val Tyr Glu Met Val Gln Arg Ile Leu Leu Ser Thr Arg Gly
 20 25 30
 Tyr Val Asn Phe Val Asn Glu Val Phe His Gln Ala Phe Leu Leu Pro
 35 40 45
 Ser Cys Glu Ile Ala Val Thr Arg Lys Val Val Gln Val Tyr Arg Lys
 50 55 60
 Trp Ile Leu Gln Asp Lys Pro Val Phe Met Glu Glu Pro Asp Arg Lys
 65 70 75 80
 Asp Val Ala Gln Glu Asp Ala Glu Lys Leu Gly Phe Ser Glu Thr Asp
 85 90 95
 Ser Lys Glu Ala Ser Ser Glu Ser Ser Gly His Lys Arg Ser Ser Ser
 100 105 110
 Trp Gly Arg Thr Tyr Ser Phe Thr Ser Ala Met Ser Arg Gly Cys Val
 115 120 125
 Thr Glu Glu Glu Asn Thr Asn Val Lys Ala Gly Val Gln Ala Leu Leu
 130 135 140
 Gln Val Phe Leu Ala Asn Ser Ala
 145 150

<210> 5917
 <211> 3727
 <212> DNA
 <213> Homo sapiens

<400> 5917
 gcttgcgcc gcgtgacggt ggcgcacaag aaggctccgc cgccctgat cgacgagtgc
 60
 atcgagaagt tcaatcacgt cagcggcagc cgggggtccg agagccccc ccccaaccgc
 120
 ccccatgcgc gcgcccacag ggagccagga cctgtgcgca ggccatgcg caagtccctc
 180
 tcccagccgc gcctgcgctc gctggccttt aggaaggagc tgcaggatgg gggtccctcga
 240
 agcagcggct tcttcagctc ctctcaggag agcgacattg agaaccacct cattatcgga
 300
 cacaatatgg tgcagccac agatategag gaaaatcgaa ctatgctctt cagcattggc
 360
 cagtctgaag ttacctcat cagtctctgac accaaaaaa tagcattgga gaaaaatttt
 420
 aaggagatat ccttttgctc tcagggcctc agacacgtgg accacttttg gtttatctgt
 480
 cgggagctct ccggaggtgg cggctttcat ttgtctgtt acgtgtttca gtgcacaaat
 540
 gaggtcttgg ttgatgaaat tatgatgacc ctgaaacagg ccttcacggt ggccgcagtg
 600

cagcagacag ctaaggcgcc agcccagctg tgtgagggtc gccccctgca aagcctgcac
660
aagctctctg agaggataga gggaatgaat tcttccaaaa caaaactaga actgcaaaag
720
cacctgacga cattaaccaa tcaggagcag gcgactatct ttgaagaggc tcagaaattg
780
agaccgagaa atgagcagcg agagaatgaa ttgattatct ctttctgag atgtttatat
840
gaagagaac agaagaaca catccatatt ggggagatga agcagacatc gcagatggca
900
gcagagaata ttggaagtga attaccaccc agtgccactc gatttaggct agatattgctg
960
aaaaacaaag caaagagatc ttaacagag tctttagaaa gtattttgtc ccggggtaat
1020
aaagccagag gccctgcagga acactccatc agtgtggatc tggatagctc cctgtctagt
1080
acattaagta acaccagcaa agagccatct gtgtgtgaaa aggaggcctt gccctctct
1140
gagagctcct ttaagctcct cggctcctcg gaggacctgt ccagtgaactc ggagagtcac
1200
ctcccagaag agcccagctcc gctgtcgcgc cagcaggcctc tcaggaggcg agcaaacacc
1260
ctgagtcact tccccatcga atgccaggaa cctccacaac ctgcccgggg gtccccgggg
1320
gtttcgcaaa ggaacttat gaggtatcac tcagtgaagc cagagacgcc tcatgaacga
1380
aaggactttg aatccaaagc aaaccatctt ggtgattctg gtgggactcc tgtgaagacc
1440
cggaggcatt cctggaggca gcagatatcc ctccgagtag ccaccccgca gaaggcgtgc
1500
gattcttcca gcagatatga agattattca gagctgggag agcttcccc acgactctct
1560
ttagaaccag tttgtgaaga tgggcccttt ggcccccacc agaggaaaaa aaaaggacat
1620
ctcgtgagct ccgagagctg tggcaaaagg ctattcttca acagatactg cntgcttaga
1680
atggagaagg aaaatcagaa gctccaagcc tctgaaaatg atttgcgtga caagcgctg
1740
aagctogatt atgaagaaat tactccctgt cttaagaag taactacagt ttgggaaaag
1800
atgcttagca ctccaggaag atcaaaaatt aagtttgaca tggaaaaaat gcactcggt
1860
gttgggcaag gtgtgccacg tcatcacga ggtgaaatct ggaatttct agctgagcaa
1920
ttccacctta aacaccagtt tcccagcaaa cagcagccaa aggatgtgccc atacaaagaa
1980
ctcttaaagc agctgacttc ccagcagcat gcgattctta ttgaccttg gcgaaccttt
2040
cctacacacc catacttctc tgcccagctt ggagcaggac agctatcgct ttacaacatt
2100
ttgaaggcct actcacttct agaccaggaa gtgggatatt gccaaagtct cagctttgta
2160
gcaggcatct tgcttcttca tatgagtga gaaggagcgt ttaaaatgct caagttctg
2220

atgtttgaca tggggctgcg gaaacagtat cggccagaca tgattatttt acagatccag
2280
atgtaccagc tctcgaggtt gcttcctgat taccacagag acctctacaa tcacctggag
2340
gagcacgaga tcggccccag cctctacgct gccccctggt tcctcaccat gtttgctca
2400
cagttcccgc tgggattcgt agccagagtc tttgatatga tttttcttca gggaaacagag
2460
gtcatatttta aagtggcttt aagtctgttg ggaagccata agcccttgat tctgcagcat
2520
gaaaacctag aaaccatagt tgactttata aaaagcacgc taccacaacct tggcttggtgta
2580
cagatggaaa agaccatcaa tcaggtatatt gaaatggaca tcgctaataca gttacaagct
2640
tatgaagttg agtaccacgt ccttcaagaa gaacttatcg attctctctc tctcagtgac
2700
aaccaaagaa tggataaatt agagaaaacc aacagcagct tacgcaaaac gaaccttgac
2760
ctccttgaac agttgcaggt ggcaaatggt aggatccaaa gccttgaggc caccattgag
2820
aagctcctga cgagtgaag caagctgaag caggccatgc ttaccttaga actggagcgg
2880
tcgcctgctg cagacggtgg aggagctgcg cggcgaggag gcagagccca gcgacgggga
2940
gcctgagtg cgcgagcccg agcccacggg cgactgacag cttgcaggag agattgcaac
3000
accatcacac tgtccaggcc ttaactgaga gggacagaag acgctggaag gagagaagga
3060
agcgggaagt gtgcttctca gggaggaaac cggcttgcca gcaagtagat tcttacgaac
3120
tccaacttgc aattcagggg gcatgtccca gtgttttttt tgtgttttt agatactaaa
3180
tcgtcccttc tccagtcctg attactgtac acagtagctt tagatggcgt ggaagtgaat
3240
aatgcaact tatgttttct tgttggttcc tttttgagtg tcaactgtgt tgtaaagagc
3300
attcacaata cggtggaatt tcaaaagctg gaagagctcg agatcatgcc tcaggcaaac
3360
gcgtgggtcc atcggtcttc cgagagggtt tgtgtggcga ctacaccctc agcgtccctg
3420
gcaagggtgca gttggtcttc gccattctt gttatggaaa cctaagatga tcatgggaa
3480
gatcagtgat cttgggtcat tgatccctgg ctgagaggat agcggtttcc atcataaac
3540
aagatgatga gttcagcctt tatccctcgt ggttccacta gatgtaactt aaaggagtta
3600
acatttgagg actttgttct acatcagatt ttactatttg aatgtttaag atcactttat
3660
tgaatttgaa gatcatcaaa ttaataaaaa tgattttatt aatttgata tcttgaaaaa
3720
aaaaaaa
3727

<210> 5918

<211> 981

<212> PRT

<213> Homo sapiens

<400> 5918

Ala Cys Gly Arg Val Thr Val Ala His Lys Lys Ala Pro Pro Ala Leu
 1 5 10 15
 Ile Asp Glu Cys Ile Glu Lys Phe Asn His Val Ser Gly Ser Arg Gly
 20 25 30
 Ser Glu Ser Pro Arg Pro Asn Pro Pro His Ala Ala Arg His Arg Glu
 35 40 45
 Pro Gly Pro Val Arg Arg Pro Met Arg Lys Ser Phe Ser Gln Pro Gly
 50 55 60
 Leu Arg Ser Leu Ala Phe Arg Lys Glu Leu Gln Asp Gly Gly Leu Arg
 65 70 75 80
 Ser Ser Gly Phe Phe Ser Ser Phe Glu Glu Ser Asp Ile Glu Asn His
 85 90 95
 Leu Ile Ser Gly His Asn Ile Val Gln Pro Thr Asp Ile Glu Glu Asn
 100 105 110
 Arg Thr Met Leu Phe Thr Ile Gly Gln Ser Glu Val Tyr Leu Ile Ser
 115 120 125
 Pro Asp Thr Lys Lys Ile Ala Leu Glu Lys Asn Phe Lys Glu Ile Ser
 130 135 140
 Phe Cys Ser Gln Gly Ile Arg His Val Asp His Phe Gly Phe Ile Cys
 145 150 155 160
 Arg Glu Ser Ser Gly Gly Gly Phe His Phe Val Cys Tyr Val Phe
 165 170 175
 Gln Cys Thr Asn Glu Ala Leu Val Asp Glu Ile Met Met Thr Leu Lys
 180 185 190
 Gln Ala Phe Thr Val Ala Ala Val Gln Gln Thr Ala Lys Ala Pro Ala
 195 200 205
 Gln Leu Cys Glu Gly Cys Pro Leu Gln Ser Leu His Lys Leu Cys Glu
 210 215 220
 Arg Ile Glu Gly Met Asn Ser Ser Lys Thr Lys Leu Glu Leu Gln Lys
 225 230 235 240
 His Leu Thr Thr Leu Thr Asn Gln Glu Gln Ala Thr Ile Phe Glu Glu
 245 250 255
 Val Gln Lys Leu Arg Pro Arg Asn Glu Gln Arg Glu Asn Glu Leu Ile
 260 265 270
 Ile Ser Phe Leu Arg Cys Leu Tyr Glu Glu Lys Gln Lys Glu His Ile
 275 280 285
 His Ile Gly Glu Met Lys Gln Thr Ser Gln Met Ala Ala Glu Asn Ile
 290 295 300
 Gly Ser Glu Leu Pro Pro Ser Ala Thr Arg Phe Arg Leu Asp Met Leu
 305 310 315 320
 Lys Asn Lys Ala Lys Arg Ser Leu Thr Glu Ser Leu Glu Ser Ile Leu
 325 330 335
 Ser Arg Gly Asn Lys Ala Arg Gly Leu Gln Glu His Ser Ile Ser Val
 340 345 350
 Asp Leu Asp Ser Ser Leu Ser Ser Thr Leu Ser Asn Thr Ser Lys Glu
 355 360 365
 Pro Ser Val Cys Glu Lys Glu Ala Leu Pro Ile Ser Glu Ser Ser Phe
 370 375 380
 Lys Leu Leu Gly Ser Ser Glu Asp Leu Ser Ser Asp Ser Glu Ser His

385						390						395					400
Leu	Pro	Glu	Glu	Pro	Ala	Pro	Leu	Ser	Pro	Gln	Gln	Ala	Phe	Arg	Arg		
				405					410					415			
Arg	Ala	Asn	Thr	Leu	Ser	His	Phe	Pro	Ile	Glu	Cys	Gln	Glu	Pro	Pro		
			420					425					430				
Gln	Pro	Ala	Arg	Gly	Ser	Pro	Gly	Val	Ser	Gln	Arg	Lys	Leu	Met	Arg		
		435					440					445					
Tyr	His	Ser	Val	Ser	Thr	Glu	Thr	Pro	His	Glu	Arg	Lys	Asp	Phe	Glu		
	450					455					460						
Ser	Lys	Ala	Asn	His	Leu	Gly	Asp	Ser	Gly	Gly	Thr	Pro	Val	Lys	Thr		
465					470					475						480	
Arg	Arg	His	Ser	Trp	Arg	Gln	Gln	Ile	Phe	Leu	Arg	Val	Ala	Thr	Pro		
					485				490					495			
Gln	Lys	Ala	Cys	Asp	Ser	Ser	Ser	Arg	Tyr	Glu	Asp	Tyr	Ser	Glu	Leu		
			500					505					510				
Gly	Glu	Leu	Pro	Pro	Arg	Ser	Pro	Leu	Glu	Pro	Val	Cys	Glu	Asp	Gly		
	515						520				525						
Pro	Phe	Gly	Pro	His	Gln	Arg	Lys	Arg	Lys	Gly	His	Leu	Val	Ser	Ser		
	530					535					540						
Glu	Ser	Cys	Gly	Lys	Gly	Leu	Phe	Phe	Asn	Arg	Tyr	Cys	Xaa	Leu	Arg		
545					550				555							560	
Met	Glu	Lys	Glu	Asn	Gln	Lys	Leu	Gln	Ala	Ser	Glu	Asn	Asp	Leu	Leu		
				565				570						575			
Asn	Lys	Arg	Leu	Lys	Leu	Asp	Tyr	Glu	Glu	Ile	Thr	Pro	Cys	Leu	Lys		
			580					585					590				
Glu	Val	Thr	Thr	Val	Trp	Glu	Lys	Met	Leu	Ser	Thr	Pro	Gly	Arg	Ser		
		595					600					605					
Lys	Ile	Lys	Phe	Asp	Met	Glu	Lys	Met	His	Ser	Ala	Val	Gly	Gln	Gly		
	610					615					620						
Val	Pro	Arg	His	His	Arg	Gly	Gly	Ile	Trp	Lys	Phe	Leu	Ala	Glu	Gln		
625					630				635						640		
Phe	His	Leu	Lys	His	Gln	Phe	Pro	Ser	Lys	Gln	Gln	Pro	Lys	Asp	Val		
				645					650					655			
Pro	Tyr	Lys	Glu	Leu	Leu	Lys	Gln	Leu	Thr	Ser	Gln	Gln	His	Ala	Ile		
		660					665					670					
Leu	Ile	Asp	Leu	Gly	Arg	Thr	Phe	Pro	Thr	His	Pro	Tyr	Phe	Ser	Ala		
		675					680					685					
Gln	Leu	Gly	Ala	Gly	Gln	Leu	Ser	Leu	Tyr	Asn	Ile	Leu	Lys	Ala	Tyr		
	690					695					700						
Ser	Leu	Leu	Asp	Gln	Glu	Val	Gly	Tyr	Cys	Gln	Gly	Leu	Ser	Phe	Val		
705					710				715						720		

820 825 830
 His Lys Pro Leu Ile Leu Gln His Glu Asn Leu Glu Thr Ile Val Asp
 835 840 845
 Phe Ile Lys Ser Thr Leu Pro Asn Leu Gly Leu Val Gln Met Glu Lys
 850 855 860
 Thr Ile Asn Gln Val Phe Glu Met Asp Ile Ala Lys Gln Leu Gln Ala
 865 870 875 880
 Tyr Glu Val Glu Tyr His Val Leu Gln Glu Glu Leu Ile Asp Ser Ser
 885 890 895
 Pro Leu Ser Asp Asn Gln Arg Met Asp Lys Leu Glu Lys Thr Asn Ser
 900 905 910
 Ser Leu Arg Lys Gln Asn Leu Asp Leu Leu Glu Gln Leu Val Ala
 915 920 925
 Asn Gly Arg Ile Gln Ser Leu Glu Ala Thr Ile Glu Lys Leu Leu Ser
 930 935 940
 Ser Glu Ser Lys Leu Lys Gln Ala Met Leu Thr Leu Glu Leu Glu Arg
 945 950 955 960
 Ser Pro Ala Ala Asp Gly Gly Gly Ala Ala Ala Ala Glu Arg Arg Ala
 965 970 975
 Gln Arg Pro Gly Ala
 980

<210> 5919

<211> 1320

<212> DNA

<213> Homo sapiens

<400> 5919

ggctgctgca tcttctccgc gctatggctg cgttcggccg tcaggaaaatt aaagaggggtg
 60
 ctttactgtt gccctgaaat ttccaccatg cgccagcagg acattaacga cactgtcagg
 120
 cttctcaagg agaagtgctt ttccacggta cagcaagtc ccaagatttt gcacagtgctc
 180
 ccctctgttc ttcgagagga cctgggtcaa ctggaataca agtttcagca gcctcgtctt
 240
 acagcgtgac tgcaaaagaaa aagacttttg ttttgcaaaa gaaaagcagc tcggtgactc
 300
 cgtccacatc gccacagttg agtcagatgg cagtggcagt cctttgccag tggaaggagt
 360
 tcttgctaag gggaggtgca ggaggactaa tttattattg tgcaactgcc agtctcgcgc
 420
 attccagcta cgctaagcgc cctgcccagg cactgaacaa aacatagacc tgttttgaa
 480
 tggtgtgta cccaaggggtg cctcactcat ctgcgccacc aggaagatga actgtgaggg
 540
 ctccataaag gggcaggaag agcaaagctg tcctaggcca accagagatt catctttcat
 600
 gcagtgcacat gttgataaaa aatgatggtc agtatgaaac tggtaacagg ttgtagatgg
 660
 cttttetatg tatatccag tctcttgcaa acgattgtga agaatgccag tgtgttttaa
 720
 gattcggcag tttgtgtggg gaggtggggg caggatgggg tttggttgc aaaagagttt
 780

gggaaatgct ggcttaaaca aaggcgagag gaagttccct tcacgtcagg atttatgaat
 840
 gcctatgagc ccagtggtcag tgacgacttt ctacggggcg tcttcaacac tttctaaata
 900
 ttaagcgatc aaggccctcg cccactttt agttccaaca gaatgccgtt cacaagatct
 960
 gggaggcact ctctcagccc tctcctggag ccccccgaat ttctcagcag cccaggccct
 1020
 ccgctgccc gtggcccttc ctcccaggtg ccagggtggtc ttccagcttc tccaagggcc
 1080
 cccccctcg cctcttcttc cactctgcgc tgatctaggg gtttcttggc cacatttccc
 1140
 ttgagagaga gtgggatttg ccctatccac agagagcttc atttccacct gaaggtgtat
 1200
 ttgtcagtgg ctagaccagg ttcattgtctg tttccccttg gggacttctg aaccttcttg
 1260
 cccgggagtc tgtaaacagc agcacaggac cgcgcttctt ttagcagtgc tgagtaagca
 1320

<210> 5920

<211> 93

<212> PRT

<213> Homo sapiens

<400> 5920

Met	Arg	Leu	Ser	Val	Asp	Arg	Ala	Asn	Pro	Thr	Leu	Ser	Gln	Gly	Lys
1				5					10					15	
Cys	Gly	Gln	Glu	Thr	Pro	Arg	Ser	Ala	Ala	Val	Gly	Gly	Arg	Gly	Arg
			20					25					30		
Gly	Val	Gly	Pro	Trp	Arg	Gly	Trp	Lys	Thr	Thr	Trp	His	Leu	Gly	Gly
		35				40						45			
Gly	Ala	Thr	Gly	Ser	Gly	Arg	Ala	Trp	Ala	Ala	Glu	Lys	Phe	Arg	Gly
	50				55						60				
Leu	Gln	Glu	Arg	Ala	Glu	Arg	Val	Pro	Pro	Arg	Ser	Cys	Glu	Arg	His
65				70				75					80		
Ser	Val	Gly	Thr	Lys	Ser	Gly	Ala	Gly	Ala	Leu	Ile	Ala			
			85					90							

<210> 5921

<211> 4130

<212> DNA

<213> Homo sapiens

<400> 5921

nncaccttac ttcagccctc caaggacac aaagacactg tgtactgtgt ggcataatgcg
 60
 aaggatggca agcgctttgc ttctggatca gctgacaaaa gcgttattat ctggacatca
 120
 aaactggaag gcattctgaa gtacacgcac aatgatgcta tacaatgtgt ctctcacaat
 180
 cctattactc atcaactggc atcttgttcc tccagtgaat ttgggttggt gtctcctgaa
 240
 cagaagtctg tctccaaaca caaatcaagc agcaagatca tctgctgcag ctggacaaat
 300

gatgggtcagt accctggcgtc ggggatgttc aatgggatca tcagcatatc gaacaaaaat
360
ggcgaggaga aagtaaagat cgagcgccgc gggggctccc tctcgccaat atggtccatc
420
tgctggaacc cttcaagcgc atgggagagt ttctggatga acagagagaa tgaggatgcc
480
gaggatgtca ttgtcaacag atatatctcag gaaatccctt cactctgaa gtcagcagtg
540
tacagtagtc agggtagtga ggcagaggag gaagaaccag aggaagagga cgacagtcctc
600
agggacgaca acttagagga acgtaatgac atcctggcgtg tggctgactg gggacagaaa
660
gtttccttct accagctgag tggaaaacag attggaaagg atcgggcact gaactttgac
720
ccctgctgca tcagctactt tactaaaggc gactacattt tgctgggggg ttacagacaag
780
caagttttctc ttttcaccaa ggatggagtg cggttgagg ctgttgaggga gcagaactcc
840
tgggtgtgga cgtgtcaagc gaaaccggat tccaactatg tgggtggtcg ctgcaggagc
900
ggcaccattt ccttctacca gcttattttc agcacagtcc atgggcttta caaggaccgc
960
tatgcctaca gggatagcat gactgacgtc attgtgcagc acctgatcac tgacagagaa
1020
gttcggatta aatgcaaaga gcttgtcaag aagattgcca tctacagaaa tcgattggct
1080
atccaactgc cagagaaaaa cctcatctat gagttgtatt cagaggactt atcagacatg
1140
cattaccggg taaaggagaa gattatcaag aagtttgagt gcaacctcct ggtggtgtgt
1200
gccaatcaca tcctcctgtg ccaggagaaa cggtgagct gctgttcctt cagcggagtg
1260
aaggagcggg agtggcagat ggagtctctc attcgttaca tcaaggatgat cgggtggccct
1320
cctggaagag aaggcctctt agtggggctg aagaatggac agatcctgaa gatcctctg
1380
gacaatctct ttgctatcgt cctgtcgaag caggccacag ctgtgcgctg cttggacatg
1440
agtgcctccc gtaagaagct ggccgttgga gatgaaatg acacttgctt ggtgtatgac
1500
atcgacacca aggagctgct ttttcaggaa ccaaacgcca acagtgtagc ttggaacacc
1560
cagtgtagg acatgctctg cttctcgga ggaggctacc tcaacatcaa agccagcacc
1620
ttcctgtgc accggcagaa gctgcagggc tttgtggtcg gctacaatgg ctccaagatc
1680
ttctgcctcc atgtctctc catttctgce gtggaggtgc cgcagtcgc tccatgtac
1740
cagtacctgg ataggaaact gttcaaggaa gcctaccaga ttgcttgctt ggggtgcaca
1800
gacactgatt ggcgtgaact ggccatggaa gcgctagaag gtttagattt tgaaacagca
1860
aagaaggcct tcactcagagt acaagacctc cgatatntag agctcatcag cagcattgag
1920

gagaggaaga agcggggaga gaccaacaat gacctgttcc tggcagatgt gttttcctac
1980
caggggaagt tccatgaggc cgccaaactg tacaagagga gtgggcacga gaacctcgcg
2040
cttgaaatgt acaccgacct ctgcatgttt gagtatgcca aggatttccct tggatctgga
2100
gaccccaaaag aaacaaagat gctaatacacc aaacaggctg actgggcccag aaatatcaag
2160
gagcccaaaag ccgcctgga gatgtacatc tcagcaggag agcacgtcaa ggccatcgag
2220
atctgtggtg accatggctg ggttgacatg ttgatcgaca tcgcccgcga actggacaag
2280
gctgagcgcg agcccctgct gctgtgcgct acctacctca agaagctgga cagccctggc
2340
tatgctgctg agacctacct gaagatgggt gacctcaagt ccttggtgca gctgcacgtg
2400
gagacccagc gctgggatga ggcccttgct tgggttgaga agcatcctga gtttaaggat
2460
gacatctaca tgccgtatgc tcagtggtcta gcagagaacg atcgctttga ggaagcccag
2520
aaagcgttcc acaaggctgg gcgacagaga gaagcgggcc aggtgctgga gcagctcaca
2580
aacaatgccg tggcggagag cagggtttaat gatgctgcct attattactg gatgctgtcc
2640
atgcagtgcc tcgatatagc tcaagcagat cctgcccgaa aggcacacaa gcttggcaag
2700
ttctaccact tccagcgttt ggcagagctg taccatggtt accatgccat ccacgcgccac
2760
acggaagatc cgttcagtgt ccatcgtcct gaaactcttt tcaacatctc cagggttctg
2820
ctgcacagcg tcccgaagga caccctctcg ggcctctcta aagtgaataa actcttcacc
2880
ttggccaagc agagcaaggc cctcggtgcc tacaggctgg ccgggcacgc ctatgacaag
2940
ctgcgtggcc tgtacatccc tgccagatcc caaaagtcca ttgagctggg taccctgacc
3000
atccgcgcca agcccttcca cgacagttag gagttggtgc ccttggtcta ccgctgctcc
3060
accaacaacc cgtgctcaa caacctgggc aacgtctgca tcaactgccg ccagcccttc
3120
atcttctccg cctcttcta cgacgtgcta cacctggttg agttctacct ggaggaaagg
3180
atcactgatg aagaagccat ctccctcacc gacctggagg tgctgagacc caagcgggat
3240
gacagacagc tagagattgc aaacaacagc tccagatcc tgccgctagt ggagaccaag
3300
gactccatcg gagatgagga cccgttcaca gctaagctga gctttgagca aggtggctca
3360
gagttcgtgc cagtgggtgg gagccggctg gtgctgcgct ccctgagccg cggggatgtc
3420
ctcatcaagc gatggccccc acccctgagg tggcaatact tccgctcact gctgcctgac
3480
gcctccatta ccatgtgccc ctccctgttc caggtaggtg gccaccctgg tagctcacat
3540

gtgtcttctct tggccacttt tcccttgccc aaatgtccct ctgggaggcg gggccctcgg
 3600
 gaggggagggg cacatccatg gctccaagtt gggacagagg cttgtctgtc ctctccctcg
 3660
 cttgcattcc atgtgcatct aaagtggact tcaactggccc ctgcgctgtc cacatcctcc
 3720
 ccaaatcctg gggggcccagc aagcgtgatg tgccttgac cttactcag aaaacaagaa
 3780
 accccacagc cccctccat ctccctctcc agccctcaaa caaaggtgct gcaggtctgt
 3840
 gtccagccct gaccactgcc aagccccctc cccttgagag gcagtgctgc ctggccccag
 3900
 gcgtagggct gatgagcact agggcttcag cctggctcta cagctgtctt cccttagatg
 3960
 ttccattctg aggactatga gttgctgggtg cttcagcatg gctgtgcccc ctactgccgc
 4020
 aggtgcaagg atgaccttgg cccatgacca gcactcctggg gacggcctgc accctctgcc
 4080
 cgccctgggg tctgctgggc tgtgaaggag aataaagagt taaactgtca
 4130

<210> 5922

<211> 1252

<212> PRT

<213> Homo sapiens

<400> 5922

Xaa	Thr	Leu	Leu	Gln	Pro	Leu	Lys	Gly	His	Lys	Asp	Thr	Val	Tyr	Cys
1				5					10					15	
Val	Ala	Tyr	Ala	Lys	Asp	Gly	Lys	Arg	Phe	Ala	Ser	Gly	Ser	Ala	Asp
			20					25					30		
Lys	Ser	Val	Ile	Ile	Trp	Thr	Ser	Lys	Leu	Glu	Gly	Ile	Leu	Lys	Tyr
			35				40					45			
Thr	His	Asn	Asp	Ala	Ile	Gln	Cys	Val	Ser	Tyr	Asn	Pro	Ile	Thr	His
			50				55				60				
Gln	Leu	Ala	Ser	Cys	Ser	Ser	Ser	Asp	Phe	Gly	Leu	Trp	Ser	Pro	Glu
			65			70				75				80	
Gln	Lys	Ser	Val	Ser	Lys	His	Lys	Ser	Ser	Ser	Lys	Ile	Ile	Cys	Cys
					85					90				95	
Ser	Trp	Thr	Asn	Asp	Gly	Gln	Tyr	Leu	Ala	Leu	Gly	Met	Phe	Asn	Gly
			100					105					110		
Ile	Ile	Ser	Ile	Arg	Asn	Lys	Asn	Gly	Glu	Glu	Lys	Val	Lys	Ile	Glu
			115				120					125			
Arg	Pro	Gly	Gly	Ser	Leu	Ser	Pro	Ile	Trp	Ser	Ile	Cys	Trp	Asn	Pro
			130				135					140			
Ser	Ser	Arg	Trp	Glu	Ser	Phe	Trp	Met	Asn	Arg	Glu	Asn	Glu	Asp	Ala
			145			150				155				160	
Glu	Asp	Val	Ile	Val	Asn	Arg	Tyr	Ile	Gln	Glu	Ile	Pro	Ser	Thr	Leu
			165						170					175	
Lys	Ser	Ala	Val	Tyr	Ser	Ser	Gln	Gly	Ser	Glu	Ala	Glu	Glu	Glu	Glu
			180					185				190			
Pro	Glu	Glu	Glu	Asp	Asp	Ser	Pro	Arg	Asp	Asp	Asn	Leu	Glu	Glu	Arg
			195				200					205			
Asn	Asp	Ile	Leu	Ala	Val	Ala	Asp	Trp	Gly	Gln	Lys	Val	Ser	Phe	Tyr

210	215	220
Gln Leu Ser Gly Lys Gln Ile Gly Lys Asp Arg Ala Leu Asn Phe Asp		
225	230	235
Pro Cys Cys Ile Ser Tyr Phe Thr Lys Gly Glu Tyr Ile Leu Leu Gly		
	245	250
Gly Ser Asp Lys Gln Val Ser Leu Phe Thr Lys Asp Gly Val Arg Leu		
	260	265
Gly Thr Val Gly Glu Gln Asn Ser Trp Val Trp Thr Cys Gln Ala Lys		
	275	280
Pro Asp Ser Asn Tyr Val Val Val Gly Cys Gln Asp Gly Thr Ile Ser		
	290	295
Phe Tyr Gln Leu Ile Phe Ser Thr Val His Gly Leu Tyr Lys Asp Arg		
305	310	315
Tyr Ala Tyr Arg Asp Ser Met Thr Asp Val Ile Val Gln His Leu Ile		
	325	330
Thr Glu Gln Lys Val Arg Ile Lys Cys Lys Glu Leu Val Lys Lys Ile		
	340	345
Ala Ile Tyr Arg Asn Arg Leu Ala Ile Gln Leu Pro Glu Lys Ile Leu		
	355	360
Ile Tyr Glu Leu Tyr Ser Glu Asp Leu Ser Asp Met His Tyr Arg Val		
	370	375
Lys Glu Lys Ile Ile Lys Lys Phe Glu Cys Asn Leu Leu Val Val Cys		
385	390	395
Ala Asn His Ile Ile Leu Cys Gln Glu Lys Arg Leu Gln Cys Leu Ser		
	405	410
Phe Ser Gly Val Lys Glu Arg Glu Trp Gln Met Glu Ser Leu Ile Arg		
	420	425
Tyr Ile Lys Val Ile Gly Gly Pro Gly Arg Glu Gly Leu Leu Val		
	435	440
Gly Leu Lys Asn Gly Gln Ile Leu Lys Ile Phe Val Asp Asn Leu Phe		
	450	455
Ala Ile Val Leu Leu Lys Gln Ala Thr Ala Val Arg Cys Leu Asp Met		
465	470	475
Ser Ala Ser Arg Lys Lys Leu Ala Val Val Asp Glu Asn Asp Thr Cys		
	485	490
Leu Val Tyr Asp Ile Asp Thr Lys Glu Leu Leu Phe Gln Glu Pro Asn		
	500	505
Ala Asn Ser Val Ala Trp Asn Thr Gln Cys Glu Asp Met Leu Cys Phe		
	515	520
Ser Gly Gly Gly Tyr Leu Asn Ile Lys Ala Ser Thr Phe Pro Val His		
	530	535
Arg Gln Lys Leu Gln Gly Phe Val Val Gly Tyr Asn Gly Ser Lys Ile		
545	550	555
Phe Cys Leu His Val Phe Ser Ile Ser Ala Val Glu Val Pro Gln Ser		
	565	570
Ala Pro Met Tyr Gln Tyr Leu Asp Arg Lys Leu Phe Lys Glu Ala Tyr		
	580	585
Gln Ile Ala Cys Leu Gly Val Thr Asp Thr Asp Trp Arg Glu Leu Ala		
	595	600
Met Glu Ala Leu Glu Gly Leu Asp Phe Glu Thr Ala Lys Lys Ala Phe		
	610	615
Ile Arg Val Gln Asp Leu Arg Tyr Leu Glu Leu Ile Ser Ser Ile Glu		
625	630	635
Glu Arg Lys Lys Arg Gly Glu Thr Asn Asn Asp Leu Phe Leu Ala Asp		
	640	

[illegible]

1075				1080				1085							
Asn	Ser	Ser	Gln	Ile	Leu	Arg	Leu	Val	Glu	Thr	Lys	Asp	Ser	Ile	Gly
1090				1095				1100							
Asp	Glu	Asp	Pro	Phe	Thr	Ala	Lys	Leu	Ser	Phe	Glu	Gln	Gly	Gly	Ser
1105				1110				1115				1120			
Glu	Phe	Val	Pro	Val	Val	Val	Ser	Arg	Leu	Val	Leu	Arg	Ser	Met	Ser
1125				1130				1135							
Arg	Arg	Asp	Val	Leu	Ile	Lys	Arg	Trp	Pro	Pro	Pro	Leu	Arg	Trp	Gln
1140				1145				1150							
Tyr	Phe	Arg	Ser	Leu	Leu	Pro	Asp	Ala	Ser	Ile	Thr	Met	Cys	Pro	Ser
1155				1160				1165							
Cys	Phe	Gln	Val	Gly	Gly	His	Pro	Gly	Ser	Ser	His	Val	Leu	Leu	Leu
1170				1175				1180							
Ala	Thr	Phe	Pro	Leu	Pro	Lys	Cys	Pro	Ser	Gly	Arg	Arg	Gly	Pro	Trp
1185				1190				1195				1200			
Glu	Gly	Gly	Ala	His	Pro	Trp	Leu	Gln	Val	Gly	Thr	Glu	Ala	Cys	Leu
1205				1210				1215							
Ser	Ser	Pro	Leu	Leu	Ala	Phe	His	Val	His	Leu	Lys	Trp	Thr	Ser	Leu
1220				1225				1230							
Ala	Pro	Ala	Leu	Ser	Thr	Ser	Ser	Pro	Asn	Pro	Gly	Gly	Pro	Ala	Ser
1235				1240				1245							
Val	Met	Cys	Pro												
1250															

<210> 5923

<211> 1989

<212> DNA

<213> Homo sapiens

<400> 5923

```

gggccccgc aaggccccg gcctgctgcg aggcagcatg atgaggcgca ccctggaaaa
60
ccggaacgct caaacgaaac aactgcaaac agctgtctca aatgtggaga agcattttgg
120
agaactgtgc caaatcttcg ctgcctatgt gcggaaaact gccaggctga gagacaaaagc
180
agacctcctg gtgaatgaaa ttaacgcgta tgctgtctaca gagacccccg atttaaagct
240
gggctgtgat aactttgcag atgagtttgc caaacttcag gattatcgac aagcagaggt
300
tgaaagactt gaagcccaaa aaggttgaaa gacttgaagc caaagtagtt gaacccttga
360
aaacttatgg gacattgtg aaaaatgaaa gggatgacct caaagcaaca ctcacagcaa
420
ggaatcgaga agctaagcaa ttaactcagt tagaaagaac acgtcagcga aacccatctg
480
atcgacatgt tattgtatcc ttgtaatttg ggtcttttaa aaaatgttta aggcagaaac
540
ggaattacag agagctgcaa tggatgctag ccgaacaagt cgtcatctgg aggaaactat
600
taacaacttt gaaaggcaga aatgaagga tataaagact atattttctg attttatcac
660
aatcgaaatg ttatttcacg gcaaagcttt agaggtctac actgctgcct accagaatat
720

```

acaaaacatt gatgaagatg aagatttaga gggtttccga aattctctgt atgcaccaga
 780
 ttattcatct cggttagata ttgtaagagc aaattcaaag tcacctcttc agagatcact
 840
 gtcagctaag tgtgtatctg gaacaggaca ggtatccact tgtcgactaa gaaaggatca
 900
 acaagcagaa gatgatgagg atgacgagtt agatgttaca gaagaagaaa attttcttaa
 960
 gtaaacatac catttccatt ttcatacaa atgacttgaa atccacaatg actaaattgt
 1020
 agaactttat actcactttg ctatgttaag cctcaaagtg aagtccaact ggaacagaa
 1080
 aaataattaa aggaaactta tgcagacca aaatgaagcg ttaaaaaat attgcatacc
 1140
 agtcatttca acatctctacc tagtgttaca tgatttttgt gtaagtgcct ttttttttaa
 1200
 agatggtgta tttcaaagta tttcatatta atgtactata tctacttgaa gtccaatag
 1260
 tacattatga cagaaaccaa aagatctaac aattctgctt agcttttttg ttaagactcc
 1320
 atgctttcat taccagaaaa gggctctacg tagtcattat gattcatgga attctattcc
 1380
 atgaagcctt aagaaaaaaa acttttttta actttccctg aaactttatc atttgataag
 1440
 taaatttact tttcaagaag agtataacca aagagtaagc ataattgtgac actaagttat
 1500
 caatgtttta tgaatacaca taaggcataa atttcagctg taaaaaagct acattcaatc
 1560
 tgactctggt tttaaaacaa aactgctgtc ataattatac atgatactgc aacttttgga
 1620
 aggctaattt ggtggaatgt tgcctcatca tagaacacca tagatcatta aaaattctat
 1680
 aaaaatttta ccaagctacc atatagttta taaaagggtg tacagtcact tttattctg
 1740
 aaaatataaa acattgagcc tttcagtgta tctgatgctt ctcttttggt aaggaatact
 1800
 tttatttcat ggatcccagg caggcatata aaagttacgg aatttataaa atcatttggtg
 1860
 ataattagaa aatgcaatta ttcataacag aaaataaag actttctaga aagctcttgga
 1920
 ctttgtaaat catggctctg ttcctaacaa agcactcctt cctgagaata gtcctaagtg
 1980
 acaaagttg
 1989

<210> 5924

<211> 146

<212> PRT

<213> Homo sapiens

<400> 5924

Met Phe Lys Ala Glu Thr Glu Leu Gln Arg Ala Ala Met Asp Ala Ser

1	5	10	15
Arg Thr Ser Arg His Leu Glu Glu Thr Ile Asn Asn Phe Glu Arg Gln			

	20		25		30
Lys Met Lys Asp Ile Lys Thr Ile Phe Ser Glu Phe Ile Thr Ile Glu					
35		40		45	
Met Leu Phe His Gly Lys Ala Leu Glu Val Tyr Thr Ala Ala Tyr Gln					
50	55	60			
Asn Ile Gln Asn Ile Asp Glu Asp Glu Asp Leu Glu Val Phe Arg Asn					
65	70	75	80		
Ser Leu Tyr Ala Pro Asp Tyr Ser Ser Arg Leu Asp Ile Val Arg Ala					
85	90	95			
Asn Ser Lys Ser Pro Leu Gln Arg Ser Leu Ser Ala Lys Cys Val Ser					
100	105	110			
Gly Thr Gly Gln Val Ser Thr Cys Arg Leu Arg Lys Asp Gln Gln Ala					
115	120	125			
Glu Asp Asp Glu Asp Asp Glu Leu Asp Val Thr Glu Glu Glu Asn Phe					
130	135	140			
Leu Lys					
145					

<210> 5925

<211> 4538

<212> DNA

<213> Homo sapiens

<400> 5925

gctagccagc tgtgtgaggg ccgttgcctt atctgagctc tgagttattt agtttttaat
 60
 ggaacaaga ccccgccaga caccgaggaa aacacaaatc cctatcagat cagcagccat
 120
 ggacgtggag acgtggcctt tgtccctctg tcccgagccc cggcctgtgt agttggactt
 180
 ggacagtgtc agcgctagaa aggaattgtc tgaccccgagc attgcttcctt ggctcccttc
 240
 ttcttttttc aggagagcat cctggccgacc acagccctcc ccaactgtgag ccttctctgac
 300
 agcctcatcg cgccccctac cgccccatcc ctggctcaca tggatgagca gggtctgtaa
 360
 cacacctccc ggactgagga ccgctttatc cagccacggc acttcggtcc ctcagagccg
 420
 ccactgagtg tcccgagcc cttcctcctt gtcttcacca tgcccctgct gtctcccgagc
 480
 ccgcgccac cgcccatctc ccccggttta ccattagtgc ctctcctgac cactgccttg
 540
 aaccccccgg ctccaccac cttccatcag ccacagaagt ttgctggagt caacaaaggg
 600
 ccgtctgtca tcaccacac ggccctctgc accctcaccc acgatgcccc cgccaccacc
 660
 tttagccaga gtcagggcct tgtgatcacc acccatcacc ctgcccgtc agcggcccct
 720
 tgtgggctgg cactgtctcc gtgcaccgg cctccccagc caoggttaac ttttgtgcac
 780
 cccaaacctg tatccttgac tgggggcagg cctaagcagc cccacaaaat agtgcctgct
 840
 cccaaaccag agcccggtgc cttggtgttg aagaatgccc gtatgcgcc agctgccttt
 900

tcaggccaac cacaagcggg gatcatgacg tcagggcctc tgaagagaga aggggatgtg
960
gcctccaccg tgtcccagtc caacgtgggc attgcgcctg ctgccatcgc cagggtcctc
1020
gggggtcccg agttccacag cagcatcctg gtgacagatc tcggccatgg cagcagcagc
1080
ccgctgccc ccgtctcccg gctcttccca agcacagcgc aagacccctt ggggaagggc
1140
gagcaggtcc cgctgcattg gggcagcccc caggctcactg tcacagggcc cagtgcggagc
1200
tgcccaaacct cagggcaggc ctctccgtgt gcctcggagc agagcccccag tcctcaatct
1260
ccccagaaca actgctcagg gaaatccgac ccaaaaaatg tggtgcactt aaagaaccgg
1320
cagatgaagc acatctcagc tgagcagaaa aggcgcttca acatcaagat gtgcttcgac
1380
atgctcaaca gcctcatctc caacaattcc aagctgacca gtcacgccat cacactgcag
1440
aagactgtgg agtacctcac caagctgcag caggagagag gccagatgca ggagagggcc
1500
cggcggtgct gggaggagat cgaggagctc aatgccacca tcactctctg ccagcagctg
1560
ctcccgtcca cgggagtcct cgttaccggc cgccagtttg atcacatgaa agacatgttt
1620
gacgaatacgt tgaaaaaccg gaccttgcag aattggaagt tctggatttt cagcatcatc
1680
atcaagccgc tgtttgagtc gttcaagggc atggtgtcca ccagcgcctt ggaggagctg
1740
caccggacgg cgctctcctg gctggaccag cactgctccc tgcccactct caggccgatg
1800
gtattgagca cgctgcggca gctgagcacc tccacctcca tcctcacaga cccggcacag
1860
ctgccagagc aggcgtccaa ggctgtcacc aggattggca agagattggg agagtccctg
1920
ctgcttagct ggcattgtgg cgcatgagat gccaggagac ccttccctgc ccatggagag
1980
taggctgcgc ccccagccc ttccctgacg tcagcctcgg ggctctctc caactctgcc
2040
ggccacacgt ggcacgggga ggccatgctc aggtctgaag caggtttggg gcctgtgtac
2100
agcaatagcc cgccttggg aaocccctgc tgtgaactct ctactcagt gacctcagtc
2160
accaacctcc tctgcctcgg gggcagccca cacaaggagg aagtgctggc cgtgtcggtc
2220
ctgccctgct ggtggcctgc cgggcctggc gccggtgagc ggaatcgatg ggatgagggt
2280
gacagggcct gctcctgtcc tgaggcccg ccttgtccct cctgccacgt cctgtccaca
2340
tgcatgcctc tgccatgagc cctgtctcac tctctgggtc gccgtgggg cagttggaag
2400
gcgtctttcc ttctccctc aactctgaca gcacccagcc ctgtgtgagc gacttgggct
2460
tctattcagg cttatgcatg gcaggctgcc agggggaagt gccttcttca gaggtcctcc
2520

aggcacacatg tgtgcagaaa cggctggatgt ggaacacaca ggaccagaat ggaagcgtgt
2580
gatgcacggt ggctgctctg gctgagaggc cctgctgggc atgtttcacc tgctcccttt
2640
tagctccacc tgacattgca ggatccatgg ggaactcagcc cagggcccttc tcggatgtca
2700
cctcaccgct gtggcccttc tgccgttctt ctccacttgg ctccagctgc agctgtgtgac
2760
agatcaagca tgtcctgtgg gagcttagaa ccttgaagtt ctagtgtctg aaagatcaga
2820
ctccacgtcc tgctgtcagc cttgtcatct tgtctgatgt ctttcagctg ggagcccaaa
2880
accaggacag ttctcggacc aaagatgccc ccacactcaa aagtctgtcc cgtcttgtgt
2940
ttggagaagg aaacaatgtt ggaggcagc actctgtggt ggtcagccct cagagctgtt
3000
tctaggcatc tctcagatca gacagcaaa aatctacca gatctgggct ggggtgagggt
3060
gtggctgggc tggggggccat tctgagcctg cagtgtgagt ttggcccagc ctacgtcctt
3120
gctcttctct ggctacctct gcaggggagct gcaggggcaa gcactctctc cagcactcag
3180
gaagcccggc cgaggggtacc tctcgttggg aagaatgcac tttaaagctc tgctgaggag
3240
ttcggagccc aggcctttcag gcgacctctg cctccctctc ctctcctcac cctccctctc
3300
ttcctgcagg gcttgggaag ggctttgagg gagcctggga gccatgtgaa gaggggcacg
3360
cctgggctgt cccacagttt agatccagtt ggagggttct cctggctcct gcaggcctgc
3420
gggggatctct ccccaactca ggccctccgc cagctgctgt cctcttctgc tgtgtctcag
3480
cctgcacaa aagcagcttg gtgacaccac tcagccaccc agagtacgtg ttacaggct
3540
ttccagatca ccttctctgt ggggtgaactt aatgaggcgg ggctggctct tggaaatttc
3600
cctggaaaaat ggtaacagac tccatccttg acccggggat gagcatgaag gcattgtccc
3660
aaaggcagag gccaccgttg taggaattcc accaaggcca gaagggaaaa aggaagaacc
3720
cacctgtgtc ggctgtgcgg gccctgggga gggctgtgag tgcagccctc ctctacttcc
3780
gtgcctttgt aaaactgtga gataaccgca gtggttggtg gagccaagaa ctctcctaaa
3840
tcagtggctt tctcccccac cttgtctggg gaggctattt taaaaaaatc tgttgggat
3900
aaaattggcc tctgtctgct tcagcctacc tctccctctc ctgacttaat gtctgtatc
3960
tgtttcttca gatatttaag gctgttaggt tgtgtgagcc ttgaagtgtg tgtgtgtgtc
4020
ccagcagctg tccactgtcc aggagatgca tgtctttgta ttggagatat ttctgtaaat
4080
cattctcttg gtgctcacga ttgccatggc catagggcca cagtgccgta tctgctgcag
4140

acatgattgt ttcttgttct agagggttttc ttgttttcga atcttgccctg atgaatccag
 4200
 ccagaccaaa gggcctagat ttgacctctg tcttgggctc ctggggccagg tgcagggaaca
 4260
 tctgaggcca ctctgctggc cacctccagt gggctgctgac cacaggatgg gctttgttta
 4320
 cactcatttt caccctgatt cttgccccca cttcataaa agaaacttca aaatgctgac
 4380
 gctttggaga gtaagaaaat caatcttggc tgggcacggt ggctctgccc tgtgatccta
 4440
 gcactttggg aggtgaagc tgaaggatca cttgagctca ggagttggag accaacctcg
 4500
 gcaacataac aagacctgt ctctacaaaa aaaaaaaa
 4538

<210> 5926

<211> 526

<212> PRT

<213> Homo sapiens

<400> 5926

Met	Asp	Glu	Gln	Gly	Cys	Glu	His	Thr	Ser	Arg	Thr	Glu	Asp	Pro	Phe
1				5					10					15	
Ile	Gln	Pro	Thr	Asp	Phe	Gly	Pro	Ser	Glu	Pro	Pro	Leu	Ser	Val	Pro
			20					25					30		
Gln	Pro	Phe	Leu	Pro	Val	Phe	Thr	Met	Pro	Leu	Leu	Ser	Pro	Ser	Pro
		35				40						45			
Ala	Pro	Pro	Pro	Ile	Ser	Pro	Val	Leu	Pro	Leu	Val	Pro	Pro	Pro	Ala
						55					60				
Thr	Ala	Leu	Asn	Pro	Pro	Ala	Pro	Pro	Thr	Phe	His	Gln	Pro	Gln	Lys
65				70					75					80	
Phe	Ala	Gly	Val	Asn	Lys	Ala	Pro	Ser	Val	Ile	Thr	His	Thr	Ala	Ser
			85					90					95		
Ala	Thr	Leu	Thr	His	Asp	Ala	Pro	Ala	Thr	Thr	Phe	Ser	Gln	Ser	Gln
			100					105					110		
Gly	Leu	Val	Ile	Thr	Thr	His	His	Pro	Ala	Pro	Ser	Ala	Ala	Pro	Cys
			115				120					125			
Gly	Leu	Ala	Leu	Ser	Pro	Val	Thr	Arg	Pro	Pro	Gln	Pro	Arg	Leu	Thr
			130			135					140				
Phe	Val	His	Pro	Lys	Pro	Val	Ser	Leu	Thr	Gly	Gly	Arg	Pro	Lys	Gln
145				150						155				160	
Pro	His	Lys	Ile	Val	Pro	Ala	Pro	Lys	Pro	Glu	Pro	Val	Ser	Leu	Val
				165						170				175	
Leu	Lys	Asn	Ala	Arg	Ile	Ala	Pro	Ala	Ala	Phe	Ser	Gly	Gln	Pro	Gln
			180					185					190		
Ala	Val	Ile	Met	Thr	Ser	Gly	Pro	Leu	Lys	Arg	Glu	Gly	Met	Leu	Ala
			195				200					205			
Ser	Thr	Val	Ser	Gln	Ser	Asn	Val	Val	Ile	Ala	Pro	Ala	Ala	Ile	Ala
			210			215					220				
Arg	Ala	Pro	Gly	Val	Pro	Glu	Phe	His	Ser	Ser	Ile	Leu	Val	Thr	Asp
225				230						235				240	
Leu	Gly	His	Gly	Thr	Ser	Ser	Pro	Pro	Ala	Pro	Val	Ser	Arg	Leu	Phe
			245						250				255		
Pro	Ser	Thr	Ala	Gln	Asp	Pro	Leu	Gly	Lys	Gly	Glu	Gln	Val	Pro	Leu


```

                260                265                270
His Gly Gly Ser Pro Gln Val Thr Val Thr Gly Pro Ser Arg Asp Cys
      275                280                285
Pro Asn Ser Gly Gln Ala Ser Pro Cys Ala Ser Glu Gln Ser Pro Ser
      290                295                300
Pro Gln Ser Pro Gln Asn Asn Cys Ser Gly Lys Ser Asp Pro Lys Asn
305                310                315                320
Val Ala Ala Leu Lys Asn Arg Gln Met Lys His Ile Ser Ala Glu Gln
      325                330                335
Lys Arg Arg Phe Asn Ile Lys Met Cys Phe Asp Met Leu Asn Ser Leu
      340                345                350
Ile Ser Asn Asn Ser Lys Leu Thr Ser His Ala Ile Thr Leu Gln Lys
      355                360                365
Thr Val Glu Tyr Ile Thr Lys Leu Gln Gln Glu Arg Gly Gln Met Gln
      370                375                380
Glu Glu Ala Arg Arg Leu Arg Glu Glu Ile Glu Glu Leu Asn Ala Thr
385                390                395                400
Ile Ile Ser Cys Gln Gln Leu Leu Pro Ala Thr Gly Val Pro Val Thr
      405                410                415
Arg Arg Gln Phe Asp His Met Lys Asp Met Phe Asp Glu Tyr Val Lys
      420                425                430
Thr Arg Thr Leu Gln Asn Trp Lys Phe Trp Ile Phe Ser Ile Ile Ile
      435                440                445
Lys Pro Leu Phe Glu Ser Phe Lys Gly Met Val Ser Thr Ser Ser Leu
      450                455                460
Glu Glu Leu His Arg Thr Ala Leu Ser Trp Leu Asp Gln His Cys Ser
465                470                475                480
Leu Pro Ile Leu Arg Pro Met Val Leu Ser Thr Leu Arg Gln Leu Ser
      485                490                495
Thr Ser Thr Ser Ile Leu Thr Asp Pro Ala Gln Leu Pro Glu Gln Ala
      500                505                510
Ser Lys Ala Val Thr Arg Ile Gly Lys Arg Leu Gly Glu Ser
      515                520                525

```

<210> 5927

<211> 1786

<212> DNA

<213> Homo sapiens

<400> 5927

```

ctccacactt tatttttgcg ggcctggattt gtcattttgc tgtcagaaca ggcctacaac
60
atacctcaga tgtttttcct ttaccttgctc attctgagca aaagcatgac tccatcacct
120
gtctgggcac ataccgagtc tttgtctgga tgggtgtcagc acatcctgca cactcagcgg
180
caaccctgaa aataacatct accacctgcc aggcgaattgg ctgactgcct ccgtgatctt
240
caggggcctc gagggacaat gtatttagtc atgcacctct gtaagtgcag ggaatgtac
300
tgggacacct ttcgattccc aaggaaataa aaggaaaatg acaaacacat agtcacgctg
360
tggatccctg tttattccca tctctgggca ggcctgtaaa gagcatcgac ccaggtctca
420

```

acccactgc tggtaactga gccacagaaa ctgtaagcaa gtgacactca tccagggaga
480
actactcccc taaaccggtt cttagccagc aagagagccc cacaggaagg tctctgataa
540
cctgaagttt tgaaaagctt agaactgtgt gatcaggcca tatgcccctc agttcctgaa
600
tgttcactac cctgtggtgt ccccttgcca tggaaagagac tccaaccaca cacatcagtt
660
aagctgccaa cactgtttcc tcccattctt gctctgcgaa caacgcacag tccagccagg
720
agctcaacag ggaggggttt cttgttgtgt catggctgag atcaaaagtc ttgtacacca
780
aggacatag ggacagaagg gagccaacaa ctttatgcc aaatcccatt cccaagatga
840
ctatatttta tagtttatta tgaggttaact gcctccagac agataagccc ctgcatgatg
900
ctgaaagtca gagcctgggg gtgaatgcc ccttatcttt gtctctctca gctggctctgc
960
gtgtctctgc tcagaacgct gtgtagtagt gctccattgt gctgacaatg tcaactctgg
1020
ctccaggag ctccagaact tgctgcagca cagcctcgct caggcccggg cggatgctca
1080
ggcgagcaca ggccaagatg tgcaggaagt gacagccctt ctccatgtga ttgggtttct
1140
ggcagtcctg ctgaatgatc cgggtgatct tctgtgagc gtctttgtct tctctggtta
1200
catagtatag gttatcaaaa ccatcatctt tctggaaaaa agtctctttt tctctgagca
1260
gttgatatag attcttaaat atactatgaa ttgccttgga agtgggtgtcc ttcttaaaat
1320
tcaactgggtc ggagcaggca ctgtgaatca caggctgatt ggcaaggagc agcaaaagact
1380
cgaccatttc cagctcctgc tggtaaaagc tctgcactct gttctccatg aggaattctt
1440
tggtcttttc actcagcaaa ctctgtgagc tggggaggtc caggggcgct ggattgctta
1500
gtgcctcttc tttctctagg gctgagctgt gaaaaggctg gtcataaact ttcctgtaga
1560
tagtgggcag ctcaagcacc cttgcaattt gaatgttcca cactgggtcg tccactttat
1620
agtaagcggg ggcatgaatc tctcgctctt ctctgtatgt gcggatactg cctctgactc
1680
ggatcgtgtc ccgatctctt atctttgttt tctgtcfaat ggtctcttgt agctctttaa
1740
gttgtgaggt taagctgagc tctcttgctg cacttggagc agccct
1786

<210> 5928

<211> 202

<212> PRT

<213> Homo sapiens

<400> 5928

Met Leu Glu Leu Pro Thr Ile Tyr Arg Lys Val Tyr Asp Gln Pro Phe

```

      1           5           10           15
His Ser Ser Ala Leu Glu Lys Glu Glu Ala Leu Ser Asn Pro Gly Ala
      20           25           30
Leu Asp Leu Pro Ser Leu Thr Ser Leu Leu Ser Glu Lys Ala Lys Glu
      35           40           45
Phe Leu Met Glu Asn Arg Val Gln Ser Phe Tyr Gln Gln Glu Leu Glu
      50           55           60
Met Val Glu Ser Leu Leu Ser Leu Ala Asn Gln Pro Val Ile His Ser
      65           70           75           80
Ala Cys Ser Asp Gln Val Asn Phe Lys Lys Asp Thr Thr Ser Lys Ala
      85           90           95
Ile His Ser Ile Phe Lys Asn Ala Ile Gln Leu Leu Gln Glu Lys Gly
      100          105          110
Leu Val Phe Gln Lys Asp Asp Gly Phe Asp Asn Leu Tyr Tyr Val Thr
      115          120          125
Arg Glu Asp Lys Asp Leu His Arg Lys Ile His Arg Ile Ile Gln Gln
      130          135          140
Asp Cys Gln Lys Pro Asn His Met Glu Lys Gly Cys His Phe Leu His
      145          150          155          160
Ile Leu Ala Cys Ala Arg Leu Ser Ile Arg Pro Gly Leu Ser Glu Ala
      165          170          175
Val Leu Gln Gln Val Leu Glu Leu Leu Glu Asp Gln Ser Asp Ile Val
      180          185          190
Ser Thr Met Glu His Tyr Tyr Thr Ala Phe
      195          200

```

<210> 5929

<211> 606

<212> DNA

<213> Homo sapiens

<400> 5929

```

nngcgcgcgc cgcgcgtcccc agacaaaggc ttggccggcg gccccggccc gctgcgcctc
60
cgctccccgc ctccccagct cttctcgcgt cctccccccc gcgcttggct cggcgcgctc
120
cgcccgccgc caaagtttcc cgggcggcag cggcgcgctgc gctcgccttc agcgatggcc
180
gcggagctga gcatggggcc agagctgccc accagcccg tggccatgga gtatgtcaac
240
gacttcgacc tgctcaagtt cgacgtgaag aaggagccac tggggcgcgcg gtagcgctcg
300
ggcaggccct gcacacgcct gcagccagcc ggctcggtgt cctccacacc gctcagcact
360
ccgtgtagct ccgtgccctc gtgcgccagc ttcagcccg cogaacagaa gacacacctc
420
gaggatctgt actggatggc gagcaactac cagcagatga accccgaggc gctcaacctg
480
acgcccgagg acgcggtgga agcgcctcct ggctcgcacc cagtgcacac gccctgcaa
540
agcttcgaca gctttcgcg cgtccaccac caccaccate accaccaccc tcaccgcgac
600
cacgcg
605

```

<210> 5930
 <211> 144
 <212> PRT
 <213> Homo sapiens

<400> 5930
 Met Ala Ala Glu Leu Ser Met Gly Pro Glu Leu Pro Thr Ser Pro Leu
 1 5 10 15
 Ala Met Glu Tyr Val Asn Asp Phe Asp Leu Leu Lys Phe Asp Val Lys
 20 25 30
 Lys Glu Pro Leu Gly Arg Ala Glu Arg Pro Gly Arg Pro Cys Thr Arg
 35 40 45
 Leu Gln Pro Ala Gly Ser Val Ser Ser Thr Pro Leu Ser Thr Pro Cys
 50 55 60
 Ser Ser Val Pro Ser Ser Pro Ser Phe Ser Pro Thr Glu Gln Lys Thr
 65 70 75 80
 His Leu Glu Asp Leu Tyr Trp Met Ala Ser Asn Tyr Gln Gln Met Asn
 85 90 95
 Pro Glu Ala Leu Asn Leu Thr Pro Glu Asp Ala Val Glu Ala Leu Ile
 100 105 110
 Gly Ser His Pro Val Pro Gln Pro Leu Gln Ser Phe Asp Ser Phe Arg
 115 120 125
 Gly Ala His His His His His His His Pro His Pro His His Ala
 130 135 140

<210> 5931
 <211> 478
 <212> DNA
 <213> Homo sapiens

<400> 5931
 nggagatggc ggagtcgctt gaggtctccg cgccgctccc tgtacaaact ggtgggctcg
 60
 ccgccttgga aagaggtctt ccggcagaga tgccctggaga gaatgagaaa cagccgggac
 120
 aggcctctaa acaggtaccg ccaggctgga agcagtgggc cagggaattc tcagaacacg
 180
 ttctagttc aagaggtgat ggaagaagag tggaatgctt tgcagtcagt ggagaattgt
 240
 ccagaagact tggctcagct ggaggagctg atagacatgg ctgtgctgga ggaattcaa
 300
 caggagctga tcaaccaagg tacaacctga gaatcacaag cgggtgtggtg gtgtgtcagt
 360
 gtggcctgtc catcccatct cattctcttg agttgacaga gcagaagctt cgtgcctgtt
 420
 tagagggtag tataaatgag cacagtgcac attgtcccca cacacccctc tcacgcgt
 478

<210> 5932
 <211> 109
 <212> PRT
 <213> Homo sapiens

<400> 5932

Xaa Arg Trp Arg Ser Arg Leu Arg Ser Pro Arg Arg Ser Leu Tyr Lys
 1 5 10 15
 Leu Val Gly Ser Pro Pro Trp Lys Glu Ala Phe Arg Gln Arg Cys Leu
 20 25 30
 Glu Arg Met Arg Asn Ser Arg Asp Arg Leu Leu Asn Arg Tyr Arg Gln
 35 40 45
 Ala Gly Ser Ser Gly Pro Gly Asn Ser Gln Asn Ser Phe Leu Val Gln
 50 55 60
 Glu Val Met Glu Glu Glu Trp Asn Ala Leu Gln Ser Val Glu Asn Cys
 65 70 75 80
 Pro Glu Asp Leu Ala Gln Leu Glu Glu Leu Ile Asp Met Ala Val Leu
 85 90 95
 Glu Glu Ile Gln Gln Glu Leu Ile Asn Gln Gly Thr Thr
 100 105

<210> 5933

<211> 1953

<212> DNA

<213> Homo sapiens

<400> 5933

atggagatcc gagagaaggg ctccgagttc ctgaaggagg agctgcacag agcgcagaa
 60
 gagctgaagc taaaggacga ggaatgtgag cggctgtcca aggtgcggga gcagctagaa
 120
 caggagctgg aagagctgac ggccagcctg ttgaggaag ctcaacagat ggctcgagaa
 180
 gccaacatga agcaggcggc atcagaaaag cagctgaagg aggtcgggg caagatcgac
 240
 atgctgcagg cagaggtgac agccttgaag acactgggtca tcacgtccac accagcctct
 300
 cccaaccggc agcttcaccc ccagctgctg agccccacca aggcgggggc ccgaaggggc
 360
 cactctcgcc acaagagcac cagcagcacc ctctgccccg ccgtgtgtcc cgctgcggga
 420
 cacacctca cccagacag agaggggcaag gaggtggaca caatcctgtt tgcagagttc
 480
 caggccttga gggaaatccc caccctggac aagacctgcc ccttcttgga aaggtgtac
 540
 cgagagcagg tgggcccctg cctggacttc acaatgcagg agctctcggt gctggtacgg
 600
 gccgccttgg aggacaacac gctcaccatt gagccgggtg ctctgcagac gctgccca
 660
 gtgaagggtg ccgaggttga ctgtagcagc accaacacat gtgccctgag cgggtgaccc
 720
 cgcaacctgcc gccaccgaat ccggctcggg gactccaaaa gccattacta catctcgcca
 780
 tcttcccgcc ccaggatcac cgcagtgtgc aacttcttca cctacatccg ctacatccag
 840
 caaggccttg tgcggcagga cgcagagccc atgttcttgg agatcatgag gttgcggaag
 900
 gagatgtcac tggccaagct cggcttcttc cccaggagg cttaggggcg gccccaggcc
 960

tgaaggggag ctctgagaca gagcaaacac ccaccccaga acaagccgac acacagggag
 1020
 acggggggcct ggagccagcc ctgagccaga ggcagaatgg atggacagac agggccatgga
 1080
 ggagcactg agccagcacc acacgtccat cctgggacag acgggccttg acttcacggc
 1140
 aagaccccc tctcttcccc actgggttct gccaccacca ggaggatttc aagaaagcac
 1200
 caaagaccag ggagctcgga tccatactcg gggggcctca gcccttgga ggggacacct
 1260
 gaggcagcca gcgccccctc cccagtcctc agaactgcct gcaggtgcct tgttctgtgc
 1320
 ttgtcttcag aaagggactg ttctgggtgg ctggatctcc aggggtacct ccaccccagc
 1380
 tgcgaagccc tgggccagca gcacccctt gtggccatcc tgtgccttgt tcccgggtggc
 1440
 ctccctattg gactactagg aggggctggc agggcctcca tagcacagaa ttgccccaaa
 1500
 gcctgtgtaa gatgagtcaa gacccctccc ccgcttctc ccttccttc ccccttctc
 1560
 cctccccctt cataaaggcc tcccttgta ccttccttc caccocgtct cagccctgtg
 1620
 ctctggagg cctgtctccc aaaacogctg gaaggactgg ggcactttct gccacagtag
 1680
 aacacagaca gggcttcaga tcacccacgc ctgttttcag ctgtgggtgg ccatgcagac
 1740
 acgcgcccctg gcattgtggg cctgggtggg caggcaggac ctgggcccct ccacccatca
 1800
 gagcccactc aggaccagcg ttccggagctc ccacctggac gcacccctca ccacgtccgg
 1860
 atttcttct ttggatggaa tgtaacgcga tctctattta ataaaggcag gctttgttgg
 1920
 tacaggcaaa aaaaaaaaaa aaaaaaaaaa aaa
 1953

<210> 5934

<211> 314

<212> PRT

<213> Homo sapiens

<400> 5934

Met Glu Ile Arg Glu Lys Gly Ser Glu Phe Leu Lys Glu Glu Leu His
 1 5 10 15
 Arg Ala Gln Lys Glu Leu Lys Leu Lys Asp Glu Glu Cys Glu Arg Leu
 20 25 30
 Ser Lys Val Arg Glu Gln Leu Glu Gln Glu Leu Glu Glu Leu Thr Ala
 35 40 45
 Ser Leu Phe Glu Glu Ala His Lys Met Val Arg Glu Ala Asn Met Lys
 50 55 60
 Gln Ala Ala Ser Glu Lys Gln Leu Lys Glu Ala Arg Gly Lys Ile Asp
 65 70 75 80
 Met Leu Gln Ala Glu Val Thr Ala Leu Lys Thr Leu Val Ile Thr Ser
 85 90 95
 Thr Pro Ala Ser Pro Asn Arg Glu Leu His Pro Gln Leu Leu Ser Pro

```

      100              105              110
Thr Lys Ala Gly Pro Arg Lys Gly His Ser Arg His Lys Ser Thr Ser
      115              120              125
Ser Thr Leu Cys Pro Ala Val Cys Pro Ala Ala Gly His Thr Leu Thr
      130              135              140
Pro Asp Arg Glu Gly Lys Glu Val Asp Thr Ile Leu Phe Ala Glu Phe
145      150      155      160
Gln Ala Trp Arg Glu Ser Pro Thr Leu Asp Lys Thr Cys Pro Phe Leu
      165      170      175
Glu Arg Val Tyr Arg Glu Asp Val Gly Pro Cys Leu Asp Phe Thr Met
      180      185      190
Gln Glu Leu Ser Val Leu Val Arg Ala Ala Val Glu Asp Asn Thr Leu
      195      200      205
Thr Ile Glu Pro Val Ala Ser Gln Thr Leu Pro Thr Val Lys Val Ala
      210      215      220
Glu Val Asp Cys Ser Ser Thr Asn Thr Cys Ala Leu Ser Gly Leu Thr
225      230      235      240
Arg Thr Cys Arg His Arg Ile Arg Leu Gly Asp Ser Lys Ser His Tyr
      245      250      255
Tyr Ile Ser Pro Ser Ser Arg Ala Arg Ile Thr Ala Val Cys Asn Phe
      260      265      270
Phe Thr Tyr Ile Arg Tyr Ile Gln Gln Gly Leu Val Arg Gln Asp Ala
      275      280      285
Glu Pro Met Phe Trp Glu Ile Met Arg Leu Arg Lys Glu Met Ser Leu
      290      295      300
Ala Lys Leu Gly Phe Phe Pro Gln Glu Ala
305      310

```

<210> 5935

<211> 2727

<212> DNA

<213> Homo sapiens

<400> 5935

```

nngctgcctc cgctgatcc cggcctgtc ggccgacccc acctcgccaa ccgaggcgga
60
ccgcgggagt tgcgaaacgac cccaccgctg ctttctcctc ccccagatca cgcaccccg
120
ctccggaata tggggaaactg cctcaaatcc cccacctcgg atgacatctc cctgtctcac
180
gagttctcagt ccgaccgggc tagctttggc gaggggacgg agccggatca ggagccggcg
240
ccgcatatc aggaacaagt tccagttcca gtctaccacc caacacctag ccagactcgg
300
ctagcaactc agctgactga agaggaaaca attaggatag ctcaagaat aggtcttata
360
caacatctgc ctaaaggagt ttatgacctt ggaagagatg gatcagaaaa aaagatccgg
420
gagtggtgta tctgtatgat ggactttgtt tatggggacc caattcgatt tctgcgctgc
480
atgcacatct atcacctgga ctgtatatag gactggttga tgagatcctt cactgtcccc
540
tcctgcattg agccagttga tgcagcactg ctttcacctt atgagactaa ttgagccagg
600

```

gtctcttattc tgacttcaag tgaaccacca ttttgggtggt ttgatcttt tgtcactgag
660
cccaagagc cagggattag gaattaagat cgtgcacaaa agtttcctta aaattcctgg
720
atggctgcag atgttggggg aaaaagtacg tgatatttta gaaacttagt gggaaaagta
780
ggatgggtatt ttatgtaaa gccttgaccc aatgtttaa aatataattg tatttagatc
840
ttgttattgc tccagtacat aggaattgtg taaagtgtta acagcagctg tatttgttta
900
aattgtgtgt attgaagatt aggaaaaa tagtagttat ttttcctaaa tgaaaaaact
960
ttcttctctt ccccttcccc acccgaattc tttctgaag ttgctggcat ttgggtcaag
1020
gttttattaa aagctacatt ttataacact ggcacacaca aaaaagtagt ttaagccttg
1080
ttgcacagt tcttttttct cattggaaat ggaattcatt gccttaggtc tttttaaata
1140
gtgtattatt atcgttgggg ctggctctat gcttgaaaac cagtttattt ataacctgtt
1200
ataagtgcata tttctgttt gcagttagga aatgcagaat tcaaagtgat ctctagctt
1260
gtaagcaaac tgagatgcac tatccctttt ctataaaaa taagttaattg tgtcaagaaa
1320
ccaactctat taagggtggg tttaattatta ccttttcta tegtttttat ctaattattt
1380
tgggtgttaa tatggtgata atggaagtc aagttaattt taaatatta agaattctga
1440
ttatttgaga ttgaattatg ccaccacgtt tatgtaaaaa tgaagggtgc accgtggtga
1500
gacctaatga gaaatagtta ctacgttgta aaaattttga tttattctct tcttctgac
1560
ctccttcctt cttgtcttga accatagcaa aaggatactg catctctcat tactgtagt
1620
ctgaggttat tgaagtata caaacacat ctacgtctct gtttcttgga aaggtatcta
1680
ttacatcctg ctacgtgact gacaaaacta agcagggaga ataaagataa ttgtatttta
1740
tgttttgac acaaacgcag aatttgtata accatagac ttcatagttg tgatctcaaa
1800
aaagaaggaa tttctcctt gtttcttgca gttaatgtaa gaatacttta aatctctaag
1860
cttctgaagt gttagaggt gagatggtct agtaagatg tagtagtaat gttttatcca
1920
tttagcatgt gtttattttt tcatatgtac tcaaagggtga cttattgggt caccctagtg
1980
atattacagc taaaaaaatc attcattagc aaaagggaaa gtggtctcaa cctaactca
2040
gaagtgtttc ttattattat ttatatttga gttgaatatt gaactctaac agttttctac
2100
atacaaaaca cagtgtcatg aaggttattc ataattgcat tatagaggaa tgtagtatgt
2160
cataagtact ttgtaaagat ttgacattca actgtagtat ccatatgttg cttaaatttc
2220

cttatgagcc ccatgatgga aagacttaaa gatgaatttg agaaaaattg aaagaaatta
 2280
 gattatcagg ttctgttaaa ttgttacatg tatcttgctt aaatttctgt ttattaattt
 2340
 atatccaccc aagtacataa agcaaatttg gaggaacaaa ctgaagtgtg gcaatatttt
 2400
 ctgataattg ctttttttat tcttggtgtt tctacttaaa cataatgtct gtgtcatcaa
 2460
 gtattatagt cagacttttc tttttttcta gattgttaaa attggcaaat gaactttttt
 2520
 aaaaatcatt tccatgttg cagttagtct ttcttttcat tacaagtcct tcacagaagt
 2580
 ttggtggtaa tattgaaaga actagcattg ggcagaatgt gtctttttta ggccactttat
 2640
 attctcaaca tacaatgtta agaaccatca attttgactt ttactaagtt gttaaataaa
 2700
 gttataatac agctgtgaaa aaaaaaa
 2727

<210> 5936

<211> 154

<212> PRT

<213> Homo sapiens

<400> 5936

Met	Gly	Asn	Cys	Leu	Lys	Ser	Pro	Thr	Ser	Asp	Asp	Ile	Ser	Leu	Leu
1			5					10					15		
His	Glu	Ser	Gln	Ser	Asp	Arg	Ala	Ser	Phe	Gly	Glu	Gly	Thr	Glu	Pro
			20					25					30		
Asp	Gln	Glu	Pro	Pro	Pro	Pro	Tyr	Gln	Glu	Val	Pro	Val	Pro	Val	
			35				40				45				
Tyr	His	Pro	Thr	Pro	Ser	Gln	Thr	Arg	Leu	Ala	Thr	Gln	Leu	Thr	Glu
			50			55				60					
Glu	Glu	Gln	Ile	Arg	Ile	Ala	Gln	Arg	Ile	Gly	Leu	Ile	Gln	His	Leu
65				70					75					80	
Pro	Lys	Gly	Val	Tyr	Asp	Pro	Gly	Arg	Asp	Gly	Ser	Glu	Lys	Lys	Ile
			85					90					95		
Arg	Glu	Cys	Val	Ile	Cys	Met	Met	Asp	Phe	Val	Tyr	Gly	Asp	Pro	Ile
			100				105					110			
Arg	Phe	Leu	Pro	Cys	Met	His	Ile	Tyr	His	Leu	Asp	Cys	Ile	Asp	Asp
			115			120					125				
Trp	Leu	Met	Arg	Ser	Phe	Thr	Cys	Pro	Ser	Cys	Met	Glu	Pro	Val	Asp
			130			135					140				
Ala	Ala	Leu	Leu	Ser	Ser	Tyr	Glu	Thr	Asn						
145						150									

<210> 5937

<211> 1536

<212> DNA

<213> Homo sapiens

<400> 5937

naagctttag tgattgtggc ttattcacag ctattctttt ctgcaacctg attgaaaaatg
 60

ttcagagatt aggcttgaca ccaccactg tcattagatt aaataaacat cttttgagtc
120
tttgcacatg ttatctcaag gtcctgagacc tgtggtgtgc gaaccccatg ggactttagt
180
agtactcaga tcctcctttg tttggtgcgt agtatattaa caagtaaac tgccgtatg
240
ctcaccagaa aggaacacaga gcatgtcagt gctttgattc ttagagcctt tttgcttaca
300
attccagaaa atgctgaagg ccacatcatt ttaggaaaga gtttaattgt accttttaaa
360
gggtcaagag ttatagattc cactgtatta cctgggatac tcattgaaat gtccagaagt
420
caattaatga ggctattacc tatcaaaaaa tcaactgcc tcaagggtgc actcttttgt
480
acaactttat ccggagacac tctgacact ggagaaggaa ctgtggtggt cagttaatggg
540
gtttctcttg aaatgcagt cttggaccag ctgcttaacc taggaaggca gctaatacgt
600
gaccacgtag atcttgtcct gtgccaaaaa gttatacatc catctttgaa gcagtttctc
660
aatatgcacg tcattattgc catagacaga attggagtga ctctgatgga acccctgact
720
aaaatgacag gaacacagcc tattggatcc ctaggctcaa tatgtcctaa tagttatgga
780
agtgtgaag atgtgtgcac tgcaaaattt ggctccaaac atttttttca tcttattcct
840
aatgaagcaa caatctgcag ctgtcttctc tgcaacagaa atgacactgc ctgggatgag
900
ctgaagctca cgtgtcagac ggcaactgcat gtcctgcagt taacactcaa ggaacctgg
960
gctttgttgg gaggtggctg tactgaaact catcttgctg catatatcag acacaagact
1020
cacaacgacc cagaaagcat tctcaaagat gatgaatgta ctcaaacaga acttcaatta
1080
attgtgaag catctttgcag tgccctagaa tctgttgttg gctctttaga acatgatgga
1140
gggtgaaattc tcactgacat gaagtatgga cacctttggt cagttcaggc agattctccc
1200
tgtgttgcta actgcccaga tttgctttca cagtgtggtc gtggattata caatagccag
1260
gaagaactca actggtcctt cttaagaagc acacgtcgtc catttgtgcc acaaaagctg
1320
cttccacatg aagctgtggg ctccagccagc aacctgacct tggactgttt gactgcaag
1380
cttagtggtc tacaggtggc tgtagagaca gccaaattga ttttggtatc ttcatatgtt
1440
attgaagata aaaactaaga gaatagcatg ttcgtattac aagagaaca aataaactag
1500
tctgttggtc attgaaaaaa aaaaaaaaaa aaaaaa
1536

<210> 5938

<211> 406

<212> PRT

<213> Homo sapiens

<400> 5938

```

Met Leu Thr Arg Lys Glu Thr Glu His Val Ser Ala Leu Ile Leu Arg
 1           5           10           15
Ala Phe Leu Leu Thr Ile Pro Glu Asn Ala Glu Gly His Ile Ile Leu
 20           25           30
Gly Lys Ser Leu Ile Val Pro Phe Lys Gly Ser Arg Val Ile Asp Ser
 35           40           45
Thr Val Leu Pro Gly Ile Leu Ile Glu Met Ser Glu Val Gln Leu Met
 50           55           60
Arg Leu Leu Pro Ile Lys Lys Ser Thr Ala Leu Lys Val Ala Leu Phe
 65           70           75           80
Cys Thr Thr Leu Ser Gly Asp Thr Ser Asp Thr Gly Glu Gly Thr Val
 85           90           95
Val Val Ser Tyr Gly Val Ser Leu Glu Asn Ala Val Leu Asp Gln Leu
100          105          110
Leu Asn Leu Gly Arg Gln Leu Ile Ser Asp His Val Asp Leu Val Leu
115          120          125
Cys Gln Lys Val Ile His Pro Ser Leu Lys Gln Phe Leu Asn Met His
130          135          140
Arg Ile Ile Ala Ile Asp Arg Ile Gly Val Thr Leu Met Glu Pro Leu
145          150          155          160
Thr Lys Met Thr Gly Thr Gln Pro Ile Gly Ser Leu Gly Ser Ile Cys
165          170          175
Pro Asn Ser Tyr Gly Ser Val Lys Asp Val Cys Thr Ala Lys Phe Gly
180          185          190
Ser Lys His Phe Phe His Leu Ile Pro Asn Glu Ala Thr Ile Cys Ser
195          200          205
Leu Leu Leu Cys Asn Arg Asn Asp Thr Ala Trp Asp Glu Leu Lys Leu
210          215          220
Thr Cys Gln Thr Ala Leu His Val Leu Gln Leu Thr Leu Lys Glu Pro
225          230          235          240
Trp Ala Leu Leu Gly Gly Gly Cys Thr Glu Thr His Leu Ala Ala Tyr
245          250          255
Ile Arg His Lys Thr His Asn Asp Pro Glu Ser Ile Leu Lys Asp Asp
260          265          270          275
Glu Cys Thr Gln Thr Glu Leu Gln Leu Ile Ala Glu Ala Phe Cys Ser
280          285          290
Ala Leu Glu Ser Val Val Gly Ser Leu Glu His Asp Gly Gly Glu Ile
295          300
Leu Thr Asp Met Lys Tyr Gly His Leu Trp Ser Val Gln Ala Asp Ser
305          310          315          320
Pro Cys Val Ala Asn Trp Pro Asp Leu Leu Ser Gln Cys Gly Cys Gly
325          330          335
Leu Tyr Asn Ser Gln Glu Glu Leu Asn Trp Ser Phe Leu Arg Ser Thr
340          345          350
Arg Arg Pro Phe Val Pro Gln Ser Cys Leu Pro His Glu Ala Val Gly
355          360          365
Ser Ala Ser Asn Leu Thr Leu Asp Cys Leu Thr Ala Lys Leu Ser Gly
370          375          380
Leu Gln Val Ala Val Glu Thr Ala Asn Leu Ile Leu Asp Leu Ser Tyr
385          390          395          400
Val Ile Glu Asp Lys Asn

```

405

<210> 5939

<211> 795

<212> DNA

<213> Homo sapiens

<400> 5939

```

nnetgtctcc cctccgcct ctccctgcat tcttgttgc tctgggtct cctggggacc
60
ttatgtgcat tcgcctttcc ccaactgtgc ccttctcccc tctctctcat cctcgggcg
120
gcgtgcgcct cctgcctctc ccggccggc caccgggtg cgtgtgtcc cgtcggccg
180
ccgccccgc gctcggccg agcctgcaag cgcaagggaac aggagcagca gaaggagcgc
240
gccctgcagc ccaagaagca gcgcctggtg ttcaccgacc tgcagcagc cacgtgatc
300
gccatcttca aggagaacaa gcggccgtcc aaggagatgc aggtcaccat ctgcagcag
360
ctcggcttgg agctcaacac cgtcagcaac ttcttcatga acgcggcgcg ccgctgcatg
420
aaccgctggg ctgaggagcc cagcaggcc cccggggccc ccgcccgcgc caccggccact
480
ttctccaagg cctgaggcgc ccggccccc cgccctccct gcctccacgg cctggggcct
540
gtgccccac gtcacctccc cacatctcgc cggcccgag acccgcccc agggggcacc
600
tggagggggt gctatccggg cccccacac cggggaggg ggaagcagca cccccccag
660
cccaagtgca caaaaagggc ccccttctct cctccatgc ccaactccctc caggccaaa
720
gaagccctcc accccccccc ggaggggagg gactgacaga aaggggttc ccagccccct
780
ctccattcag gacgc
795

```

<210> 5940

<211> 96

<212> PRT

<213> Homo sapiens

<400> 5940

```

Cys Lys Arg Lys Glu Gln Glu Lys Glu Arg Ala Leu Gln Pro
1      5      10      15
Lys Lys Gln Arg Leu Val Phe Thr Asp Leu Gln Arg Arg Thr Leu Ile
20      25      30
Ala Ile Phe Lys Glu Asn Lys Arg Pro Ser Lys Glu Met Gln Val Thr
35      40      45
Ile Ser Gln Gln Leu Gly Leu Glu Leu Asn Thr Val Ser Asn Phe Phe
50      55      60
Met Asn Ala Arg Arg Arg Cys Met Asn Arg Trp Ala Glu Glu Pro Ser
65      70      75      80
Thr Ala Pro Gly Gly Pro Ala Gly Ala Thr Ala Thr Phe Ser Lys Ala

```

85

90

95

<210> 5941
<211> 2590
<212> DNA
<213> Homo sapiens

<400> 5941
tttttttttt tttttttttt ttaatcttct aagtcctttt aattgttctt ataaactagc
60
ataagatata aacttaagta gtacacatga gttttataat ttactaatct ctgacagata
120
gctaagcata gcacatcaga gcataacaca gtgtgaggga aataaagtgt acaatgacat
180
cttctattct ggacctaata attcaataga gaaagaacta ctgtagtca ctgtggttac
240
agaagggttc atggacagcg aacataaagc tctactagct aacaaatagg tcttaatgat
300
aaaaacgtgg cccttcagag aactaaaggt accaatgtgt ggcagtcctaa aattacgagg
360
aaaatgagtt cccttcaggg gtcacatcag caattttttt ttcccttttt gagacagagt
420
cttgctctgc tgnccaggtt tggagtgcag tggcatgac caggctcact gcaacctccg
480
cctcccggtt tcaagcaatt ctcatgcctc agcctcccca gtactctggga ttacagggtgc
540
ctgtcatcac ggctggctac tttttgtatt tttagttagg acagggttct accatgttgg
600
ccagggtggt ctcaaaactcc tgacctcaag tgatctgctt gtttcagcct cccaaagtgc
660
taggggttaca gacatgagcc actgtgcccc gctacctcat caattcttaa tctataaacc
720
atggataggc ttcggggagaa cccaagaacc aatgaaatct gttggtaagt tttatgtgtg
780
cggttttcta cagagaggggt caacagcatg tatattttca aagaagcttg tgggtcaaaa
840
gagagtttat tgtagaagt ccttgggcaa tcaacttggg aaagggttga ttgagaatgg
900
gggctgtgta gatcaggata atgttgtaatt tgacctcac ttgaggcttt tgtacagagg
960
atgagaagac ggtaaatca aggggttaac agaaattaac accaactatga cttgggtgatg
1020
agtggatgtg gaaacgtgag aaaaacatca atgatgaaat caagcttctg acttgcaaca
1080
gtgagtatac caagagctac aggccttgga gatgaataaa gttgggagca tctctgtttt
1140
tcatgagtgc ccatgggaca gacagggaga aatggacagt tgaaagtaca agtctagaca
1200
ggcacagtgg ctcatgtctg taaccttagc actttgggag gctgagatag gagaattact
1260
agggttcagg agtttgagac gaacctgggt gacatagta gagctcatct ctacaaaaaa
1320
taaaattagc teggcattgt gctgcaagat tatagtccct cagcctctga gtagctggga
1380

ttacagatgc tcaccacccat gcctaggttaa tttttgtatt tttagtagag atgggggttc
 1440
 accatattgg ccaggcaggt cttgaactcc tgacctccag agatctgccc acttcagcct
 1500
 cccaaagtgc tgggattaca ggcgtattcc actgtgccca gcctgagttt ctgtttagaa
 1560
 acaacagtcct atgatatgtat aatcctctct tttttgtaca cagagtaaaag aggacaaata
 1620
 ggtgaaagaa taaatgaaag gctggaatcc cacttccccc gctgtcccag ggcattggat
 1680
 attgacggat aggaggcagc aaaccactca cagagccagg aagaaatgaa tgcgttggtg
 1740
 ttgccaggag ggggaagccgg ccgggctgaa atatgctatg accatagcca ggagatactg
 1800
 atggagagaa aggaacacag agagggagag gtcacatctt ggaagaggaa gattgtggag
 1860
 aggggggaatg aggggtctggg gaggggctgc ccatcagaga agggacctca gtgttgggg
 1920
 gactactcat ttggaaattg cgggatggag gggatattga aggtcggatg caaatccgag
 1980
 aagccagagg aggggttttg ggtgatgctc ccaggatggt gggctctgat gggatctttg
 2040
 gaggggggtgt gtctaggtcg gctgggttca ggaggggtctt ttgtgtgcca ggcagagaa
 2100
 tgtcccgaag agctgagagt agagggggcca ggagcttcag ggctgcggcc agactgtggc
 2160
 ccagagctca gatcccaaag gaccatagg agaggcagg gccactcatt cactctgcaa
 2220
 gagaccagca gaatcctgag ggagatgctg acaaatcata aaaagaccaa gaatagccgg
 2280
 gagtggcgcg tcaagcctgt gatccagta ctttttgaga ggtggagaca ggaggatcat
 2340
 gtgagcccgag cggttcgaga acaacctggg caacatgggt agaccctgtt tctacaaaca
 2400
 tttcaaaaat tagttgggca tgggtggcatg tgcctagttc cagctcctca ggagctgag
 2460
 gaaagaagat tgcttgagcc caggaattag aggcctgcaat gagctatgat catgcccagt
 2520
 cactccatcc tgggtggcct gagaccctgt tggtagattc tagtctgttc cattgttttt
 2580
 gagcttttta
 2590

<210> 5942

<211> 89

<212> PRT

<213> Homo sapiens

<400> 5942

Met	Ser	Ser	Leu	His	Gly	Ser	His	Gln	Gln	Phe	Phe	Phe	Pro	Leu	Leu
1				5					10				15		
Arg	Gln	Ser	Leu	Ala	Leu	Leu	Xaa	Gln	Val	Gly	Val	Gln	Trp	His	Asp
			20					25				30			
Pro	Gly	Ser	Leu	Gln	Pro	Pro	Pro	Pro	Gly	Phe	Lys	Gln	Phe	Ser	Cys

```

          35              40              45
Leu Ser Leu Pro Ser Ser Trp Asp Tyr Arg Cys Leu Ser Ser Arg Leu
   50              55              60
Ala Thr Phe Cys Ile Phe Ser Arg Asp Arg Val Ser Pro Cys Trp Pro
   65              70              75              80
Gly Trp Ser Gln Thr Pro Asp Leu Lys
          85

```

<210> 5943

<211> 781

<212> DNA

<213> Homo sapiens

<400> 5943

```

naccggttgg cagcggcagg agtaaccaga gggagcatat acgccagttg ggtaaagac
60
tgcttggatt gaattgttgg aaatgatctc gactcggcgc aaactaaacc aactctggat
120
ggacaacttg ttgtaattgg taaggatgaa tcttatagca agacttctgg ggttccagc
180
atcaccaagc ttcaaagaca accatttgga gttgagacca agcctggaat cctttgctgt
240
tttcaaaagc agtttgagaa cccttgcttt ccaaagtctc atttttctgt caccacaagct
300
ggagagcaat ggcgcgatct cagctcacca caacctccgc ctcccagggt caagcaattc
360
tcctgtctca gcctcccgag tagctgggac cacaggcacc cgccaccagc cccggctaac
420
ttttgtattt ttagtagaga cgagggttca ccgggtctc gatctcctga cctcatgnna
480
tcggccccc cgggcctccc aaagtgctgg gattacaggc gtgagccact gcgcccagcc
540
cagatcagcc tttattttag caagtaccca tcacaagaca tacaggctaa ggcttaaaag
600
aagcccttgg gtttaaaaca aatgtttagg aggagatgag aagtttctca tctttgatgg
660
ctacaaaaa catcaaaaca aattcaggtt cagagtctag aaaagatggt actatttgca
720
gcatgggtct gatacagcag ttcttaacgg gtaactgct ttgttttaat ttatattaca
780
g
781

```

<210> 5944

<211> 174

<212> PRT

<213> Homo sapiens

<400> 5944

```

Ile Val Gly Asn Asp Leu Asp Ser Ala Gln Thr Lys Pro Thr Leu Asp
   1              5              10              15
Gly Gln Leu Val Ile Gly Lys Asp Glu Ser Tyr Ser Lys Thr Ser
   20              25              30
Gly Val Ser Ser Ile Thr Lys Leu Gln Arg Gln Pro Phe Gly Val Glu

```


<210> 5946
 <211> 121
 <212> PRT
 <213> Homo sapiens

<400> 5946
 Glu Val Ile Ser Ala Gly Pro Cys Glu Lys Ile His Asp Glu Asn Leu
 1 5 10 15
 Arg Lys Gln Tyr Glu Lys Ser Ser Arg Phe Met Lys Val Gly Tyr Glu
 20 25 30
 Arg Asp Phe Leu Arg Tyr Leu Gln Ser Leu Leu Ala Glu Val Glu Arg
 35 40 45
 Arg Ile Arg Arg Gly His Ala Arg Leu Ala Leu Ser Gln Asn Gln Gln
 50 55 60
 Ser Ser Gly Ala Ala Gly Pro Thr Gly Lys Asn Gly Glu Lys Ile Gln
 65 70 75 80
 Val Leu Thr Asp Lys Ile Asp Val Leu Leu Gln Gln Ile Glu Glu Leu
 85 90 95
 Gly Ser Glu Gly Lys Val Glu Glu Ala Gln Gly Met Met Lys Leu Val
 100 105 110
 Glu Gln Leu Lys Glu Glu Arg Glu Leu
 115 120

<210> 5947
 <211> 2283
 <212> DNA
 <213> Homo sapiens

<400> 5947
 gacaagtgga ggcgcgcgtc tagcgcggga ctctgaacta tggcggttag tgatacagag
 60
 cgagatggac tagccccaga aaagacatca ccagatagag ataagaaaa agagcagtca
 120
 gaagtatctg tttctcttag agcttcaaaa catcattatt caagatcacg atcaaggtca
 180
 agagaaagaa aacgaaagtc agataatgaa ggaagaaaa acaggagccg gaggcagaagc
 240
 aaagagcgtg cttatgcgcg aagagactga actgaagacg ctgcagactc agatagcaaa
 300
 ataataagcc tactttcatga ttnaagaacc aactctcttc taaaaacaggg aagaagacat
 360
 gaatccaag ataaatcctc taagaaacat aagtctgagg aacataatga caaagaacat
 420
 tcttctgata aaggaagaga gcgactaaat tcatctgaaa atggtgagga caggcacaaa
 480
 cgcaaaagaaa gaaagtcacg aagaggcaga agtcactcaa gatctaggct tctgtgaaaga
 540
 cgccatcgta gtagaagcag ggagcggaag aagtctcgat ccaggagtag ggagcggaag
 600
 aaatcgagat ccagaagcag agagaggaag aaatcgagat ccagaagcag ggaagaaaa
 660
 cggcgggatca ggtctcgttc ccgctcaaga tcaagacaca ggcataggac tagaagcagg
 720

agtaggacaa ggagtaggag tcgagataga aagaagagaa ttgaaaagcc gagaagattt
780
agcagaagtt taagccggac tccaagtcca cctcccttca gaggcagaaa cacagcaatg
840
gatgcacagg aagcttttagc tagaagggtg gaaagggcaa agaaattaca agaacagcga
900
gaaaaggaaa tggttgaaaa aaaaaacaa caagaaatag ctgcagcagc tgcagctact
960
ggagggttctg ttctcaatgt tgctgccctg ttggcatcag gaacacaagt aacacctcag
1020
atagccatgg cagctcagat ggcagccctg caagctaaag ctttggcaga gacaggaata
1080
gctgttccta gctactataa cccagccgct gttaatccaa tgaattttgc tgaacaagag
1140
aaaaaaagga aatgcttttg gcaggggcaag aaagaagggg acaaatccca atctgctgaa
1200
atatgggaaa aattgaattt tggaaacaag gacccaaatg tcaaatttag gaaattgatg
1260
ggattaaga gtgaagatga agctggatgt agctcagttg atgaagaaa ttacaagact
1320
ctgaagcagc aggaagaagt atttcgaaat ttagatgtct agtatgaaat ggcaagatca
1380
caaacccaca cacaagaggg aatgggtttg gggtttcacat cttcaatcgc aggaatggat
1440
gcagtttgaa aatgatcaca cttgtaaagt ttgggactta tagactttct gtctctgatg
1500
cacgtccttg ttcaccaaac agctagcact ctgacttgca tgggtgtgtg attgacttta
1560
attttattgaa aaatacaaat ttttgtaaat atcagatcag tgatactggt gttagtgttg
1620
taatcaggtt aaacccactt ccattaaact tgacaggact atagaaggat aatatttttt
1680
agttcatgaa ttctactttt caaatatata aaagctgcag gtggggataa aatctcatac
1740
atggattttt tctgtgtccg tgtcttctgt actttttgtac ttaaccttgt acagttattt
1800
tcatctcttg aaacatgaaa gaaatgttat gtatagtttc tttagaagat ctggccattt
1860
ggtacataat ccagcacaga taagctgggt ggtaatgata ataaaaatgg ttttctcaaa
1920
actggtgtta atttaagtta cctgggatgt ttctttgaat ttgttttata gtttctgtag
1980
cattttggcaa ttgctgttag aaaacactag ctgaaatcc cctccccacc acccttttta
2040
aggccagtta actatactac agtcaatacc gtggtgagca aaaatgtaaa aggtggaagg
2100
agaaaactta ctaaaatagt atgttttcct attataaggg acagacttgg tattcagtat
2160
ttgtcaaata ttacatgtgt tattcaggag atagattaat gcattaaagg gatgtaagca
2220
cttttttttt aataaagtgc cttataacaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa
2280
aaa
2283

<210> 5948
 <211> 76
 <212> PRT
 <213> Homo sapiens

<400> 5948
 Met Ala Ala Ser Asp Thr Glu Arg Asp Gly Leu Ala Pro Glu Lys Thr
 1 5 10 15
 Ser Pro Asp Arg Asp Lys Lys Lys Glu Gln Ser Glu Val Ser Val Ser
 20 25 30
 Pro Arg Ala Ser Lys His His Tyr Ser Arg Ser Arg Ser Arg Ser Arg
 35 40 45
 Glu Arg Lys Arg Lys Ser Asp Asn Glu Gly Arg Lys His Arg Ser Arg
 50 55 60
 Ser Arg Ser Lys Glu Arg Ala Tyr Ala Arg Arg Asp
 65 70 75

<210> 5949
 <211> 4706
 <212> DNA
 <213> Homo sapiens

<400> 5949
 nggcggtagt gcgtcggctg ctgccccggg ctggcagaac tcgggtgttt tgggctgaga
 60
 cagtggcagc tgcggccccg accccaagtg cggggacctc cggcgaataa aggtcggcct
 120
 gcgggttaggc cggtagggcc tgcggtccgg cctgcgggag aactgggtcg tcagtcctcc
 180
 gagtgggtgg gctggggact ttgagggagt tggctctagg gcacagtcct tgccctggcca
 240
 ggctcggagga acaagtgcct ggatctggcg tgtgtgctcc agggggtctt tccgcggccc
 300
 ttccacctc ttttacttt ggggacggta ggcctttata aacggactaa tgctgggtga
 360
 ttgttctctg tggttgttga tgcgaggaa agactctggg cccaggact cacctaaact
 420
 ggagttcgaa tactgttcgc tcgctgtgtg accttgaaa aaataacaag cttttctgaa
 480
 gtgagaagct gttctcagcc acgagtcctg tgcaagatca ctaatgatta cctggcattt
 540
 ctgcgacaca ggcaggtcct cagggtttgt gcaagtttgc aaacatgttc accctgtctc
 600
 agacctcgag agcatggttc atcgatagag ccgctcaggc acgagaagaa aggcttgtgc
 660
 agaaggaaac ggagcgggca gctgttgtga tccaggccca tgtcggagat ttctctgtc
 720
 ggagtcgact gcagagagat atcaggagag agattgatga cttttttaa gcagatgacc
 780
 ctgagtcacc taaaagaagt gcaactttgta ttttcaagat tgccaggaaa ctgctgttcc
 840
 tattcagaat caaagaggat aatgagagat ttgagaagtt gtgtcgagc atcctgagca
 900

gcattggatgc tgagaatgag cctaaggtgt ggtatgtgtc cctggcttgt tctaaggacc
960
tcacctccct ttggattcaa cagatcaaga acattttgtg gtactgtgtg gattttctca
1020
agcagctcaa gcctgaaatc ctgcaggact ccgactcat caccctgtac ctacgatgc
1080
ttgtcacctt cacagacact tcaacgtgga aaattcttcg gggaaaaggt gaaagtcttc
1140
gaccagcgat gaaccacatt tbtgcaaata taatgggaca tctcaaccag catggatttt
1200
attctgtgtc gcagatatgt ttaaccctgt gcctggcaag acccctctct tgtctatcca
1260
aaggcacctt aacagcagct ttttctctag cgttacgcc tbtgattgtc gcacagtctt
1320
cagacaatct gattcggcgt ttcctcatcc acatcatgtc tbtgctgtct ctgggtgactc
1380
atctcagcac agtgaccctt gagcgccctca ctgtttttag atcccatgac atgctctgta
1440
aattcatcat atttttaaga gaccaagatc gatgcctgtg tbtatgtgaa agttttagaag
1500
gatgccatc gctttgtcta atgggcaacc tctacactt gggctccctc agccccagag
1560
tgttagagga ggagacagat ggggtctgta gtttctctac ccagacgtgt tbtactgtc
1620
ggaagtatgt gctcagaag aagtccaacc tgaccactgt gcatcctgtc cttggctgggt
1680
tctcccaatc tbtggattat ggccttaacg agtcaatgca cttgatcacc aaacagctgc
1740
agttcttgtg ggggggtgcct ctgatccgga tcttctctgt tgacatcctg agcaagaagc
1800
tactggagag ccaggagcca gccacgcac agccagcatc ccctcagaat gtgctccag
1860
tgaagagtct cctaaagcgt gcttttcaaa agtcggcatc agtcgggaat attctcaggc
1920
ctgtcggggg taaacgggtc gactctgcag aagtccagaa ggtttgcaac atctgtgttc
1980
tctaccagac ctgcgtgaca actctcacac agattcggct gcagatactc acagggtctca
2040
cttaccttga tgacctgttt cccaaactgt gggcatttat ctgtgagctc gggcccccag
2100
gaggggttaa gctcttcttg gaatgctga acaatgacac tgaagagtcc aagcaactct
2160
tgcccatgct gatgctgttc tbtgactgtt cgcggcacct catcacaatc cttgatgaca
2220
ttgaagttaa tgaagaacag atttcattca aactggaaga gctgggtcact atctcctctt
2280
tctgaattc ttttgtgttt aagatgatct gggatggaat tbtagagaac gccaaaggtg
2340
agaccttga gctgttccag tctgtccacg ggtggcttat ggtgctgtac gagcgggact
2400
gccggcggcg ctccaccccc gaggaccact ggtctcgaaa ggaatcctaaa cctagcgtgc
2460
tcttccaaga actcagacag gacagaaaaa gggcacagtt gatcctgcag tacatccac
2520

atgtcatccc tcacaaaaac agagtctctac tgtttcgaac catggttacc aaggagaagg
2580
agaaactggg gctgggtgaa accagctctg cctccccga tgtactcac atcacatcc
2640
gcgggtccag gatgctggag agcttgtttg agtccccctg gccactgggt atcaatgccg
2700
agagctgcta ggaaggcagt gtgtgctgaa cagtggatgt ttctgacatt ctcaaggac
2760
ggctacgagc agcttaggca gctctcccag cagccatga aggggggtcat cctgtgtgaag
2820
tttgtcaatg acctcggggt ggacgaagca gggattgac aagacgggtg ttttaaggag
2880
ttcttggaa agatcatcaa gagagttttt gaccacgac tcaatctgtt caagacaacc
2940
agtgggatg agaggctgta cccctcacc acatctaca tccatgagaa ttacctgcag
3000
ctctctgagt ttgtgggaa gatgctgggg aaggctgtgt atgagggaat tgtgtgggac
3060
gtgccatttg catccttctt cctgagccaa ctgcttgggc accaccacag cgtcttctat
3120
agctcgttg atgaactgcc ttctctggac tccgagttct ataaaaacct cacctccatc
3180
aagcgtatg atggggacat cactgacctg ggcctgacgc tgtcttacga caggagctc
3240
atgggtcagc ttgtttgcc tgaactgatt cctggaggga agaccattcc tgttacaaat
3300
gaaaataaaa ttagctacat ccatctgatg gcacatttcc gaatgcacac tcaataaaaa
3360
aaccaaaacag ctgccctcat tagcggattc cgttccatta tcaaacccga gtggatccga
3420
atgttctcaa ctctgaact gcagcgtctc atctctggcg acaatgctga gattgatctg
3480
gaagatttaa agaagcacac agtctactac ggtgggttcc atggaagtca cagagtcatc
3540
atctggctct gggatattct ggctccgac ttcacacgg atgagagagc tatgtttctg
3600
aagttcgtga ccagctgctc cagacccccg ctctgggat tgcctacct caagcctcca
3660
ttctccatcc gctgcgtgga ggtgtcggac gatcaggaca cggggacac tctgggcagc
3720
gtcctccggg gcttcttcac catcgcgaag cgggagccag gcggcccgct gcccaactcc
3780
tccacctgct tcaacctgct caagctgccc aactacagca agaagagcgt cctccgcgag
3840
aagctgcgct acgccatcag catgaacacg ggctttgaac tctcctagct cctgtccag
3900
ccctgctcc agggctcctg ggctgccagg gacctcagc tcccagaggc agtgtggctc
3960
tgggaatgtg accaactatgc caggtgacat tggccctag accctctcta tagccatgag
4020
actccttgtg gcctcaagaa atttagacgc ccacgacagc actacacagc atctccaggt
4080
gatgcccaag gcacagggtc gcagaaaata aacctecaga ttccaccaac acgggtccat
4140

tcttctcgtt gatggcagag gggcttcttt tagctagttt gatcttttgg gagtctgtct
 4200
 ttcttagacc gtctgagtga gctgtgtatg aacaagtccc aggagttcca agagtctaga
 4260
 gtggtttttg cagcatgggt tgagtgtaca aagcctactg tgcgtgagat cctctccttc
 4320
 cgttcttgaa atctcttact caggtaaggc ctgcccaagc ctctatgcac cccacaaagt
 4380
 ttctgcctcc atgcggtcca cagcgctctt tccagacagc ccaggcccat ctgctgccca
 4440
 gggaagcgca ggcgcctgct agggacgcta tggacaccgt gagtccaagg cgctgctcct
 4500
 gccttgaagc cagcgctccc acgcccgggc cctccattt tctgcgtcct cagcgggctg
 4560
 agctgccaga gagtcttccc ggacctatct cgtcctatg cattcacatt ggcctcctgg
 4620
 ttgggggaa gaaaaacaac ggcctctagc agcagccccc ttccagaat gtgctgcctg
 4680
 ttccccaag cctgcttgct ccgctg
 4706

<210> 5950

<211> 397

<212> PRT

<213> Homo sapiens

<400> 5950

Met Pro Arg Ala Ala Arg Lys Ala Val Cys Ala Glu Gln Trp Met Phe
 1 5 10 15
 Leu Thr Phe Phe Lys Asp Gly Tyr Glu Gln Leu Arg Gln Leu Ser Gln
 20 25 30
 His Ala Met Lys Gly Val Ile Arg Val Lys Phe Val Asn Asp Leu Gly
 35 40 45
 Val Asp Glu Ala Gly Ile Asp Gln Asp Gly Val Phe Lys Glu Phe Leu
 50 55 60
 Glu Glu Ile Ile Lys Arg Val Phe Asp Pro Ala Leu Asn Leu Phe Lys
 65 70 75 80
 Thr Thr Ser Gly Asp Glu Arg Leu Tyr Pro Ser Pro Thr Ser Tyr Ile
 85 90 95
 His Glu Asn Tyr Leu Gln Leu Phe Glu Phe Val Gly Lys Met Leu Gly
 100 105 110
 Lys Ala Val Tyr Glu Gly Ile Val Val Asp Val Pro Phe Ala Ser Phe
 115 120 125
 Phe Leu Ser Gln Leu Leu Gly His His His Ser Val Phe Tyr Ser Ser
 130 135 140
 Val Asp Glu Leu Pro Ser Leu Asp Ser Glu Phe Tyr Lys Asn Leu Thr
 145 150 155 160
 Ser Ile Lys Arg Tyr Asp Gly Asp Ile Thr Asp Leu Gly Leu Thr Leu
 165 170 175
 Ser Tyr Asp Glu Asp Val Met Gly Gln Leu Val Cys His Glu Leu Ile
 180 185 190
 Pro Gly Gly Lys Thr Ile Pro Val Thr Asn Glu Asn Lys Ile Ser Tyr
 195 200 205
 Ile His Leu Met Ala His Phe Arg Met His Thr Gln Ile Lys Asn Gln

210	215	220
Thr Ala Ala Leu Ile Ser Gly Phe Arg Ser Ile Ile Lys Pro Glu Trp		
225	230	235
Ile Arg Met Phe Ser Thr Pro Glu Leu Gln Arg Leu Ile Ser Gly Asp		240
	245	250
Asn Ala Glu Ile Asp Leu Glu Asp Leu Lys Lys His Thr Val Tyr Tyr		255
	260	265
Gly Gly Phe His Gly Ser His Arg Val Ile Ile Trp Leu Trp Asp Ile		270
	275	280
Leu Ala Ser Asp Phe Thr Pro Asp Glu Arg Ala Met Phe Leu Lys Phe		285
	290	295
Val Thr Ser Cys Ser Arg Pro Pro Leu Leu Gly Phe Ala Tyr Leu Lys		300
	305	310
Pro Pro Phe Ser Ile Arg Cys Val Glu Val Ser Asp Asp Gln Asp Thr		315
	325	330
Gly Asp Thr Leu Gly Ser Val Leu Arg Gly Phe Phe Thr Ile Arg Lys		335
	340	345
Arg Glu Pro Gly Gly Arg Leu Pro Thr Ser Ser Thr Cys Phe Asn Leu		350
	355	360
Leu Lys Leu Pro Asn Tyr Ser Lys Lys Ser Val Leu Arg Glu Lys Leu		365
	370	375
Arg Tyr Ala Ile Ser Met Asn Thr Gly Phe Glu Leu Ser		380
385	390	395

<210> 5951

<211> 1724

<212> DNA

<213> Homo sapiens

<400> 5951

ngaaatcttg tataccgccc gcgagaagaa gccgatcgag cctttgtctg gaaagtcagc
 60
 atctccggct ccggctgcaa tgtgttcctg gtgacattag catcgggcag acccgccagg
 120
 agaggagggg tcgccagggt cccgtctgct ttcggaggcg gatcgagcgg gtgacttttg
 180
 tgcattcggt ttaatttttg gaaatctctc tttttctc ctcgctcgc tgcggggcat
 240
 gtctgatct ggcgccgct cctaccaccc tgggcagcgg agcagagtgg tcccacgcgg
 300
 tctccctccc tgctccctg actttgcaac accgcgttcc gggaggaccg gcctcggcga
 360
 gggaggaggc gggggagctg cgaacaccca gacccaaacc ctgacatgct ctggggcgga
 420
 gaggaggaag ccaggagctg agcgcgcgcg gtgggtgctg tcgcccctcg gctccagcgg
 480
 ccgggctccg ggccgctgc cctgcgcctg ggcagcagcc ttgctgtgct tggggcgcc
 540
 ccccgcttc cgcgcggggg gttcgcggcc ggcaggacca tgctgtgaa agagtaccgg
 600
 atctgcagtc cgctaccgt agacaggtac aaaattggac agctgtacat gatcagcaaa
 660
 cacagccatg aacagagtga ccggggagaa ggggtggagg tcgtccagaa tgagcccttt
 720

gaggaccctc accatggcaa tgggcagttc accgagaagc ggggttatct caacagcaaa
 780
 ctgacctagtt gggctagagc tgttgtcccc aaaatatatt atgtgacaga gaaggcttgg
 840
 aactattacc cctacacaat tacagaatac acatgtttct ttctgccgaa attctccatt
 900
 catatagaaa ccaagtatga ggacaacaaa ggaagcaatg acaccatttt cgacaatgaa
 960
 gccaaagacg tggagagaga agtttgcttt attgatattg cctgcgatga aattccagag
 1020
 cgctactaca aagaatctga ggatcctaag cacttcaagt cagagaagac aggacgggga
 1080
 cagttgaggg aaggctggag agatagtcac cagcctatca tgtgctccta caagctgggtg
 1140
 actgtgaagt ttgaggctctg ggggcttcag accagagtgg aacaatttgt acacaagggtg
 1200
 gtccgagaca ttctgctgat tggacataga caggcttttg catgggttga tgagtgggtat
 1260
 gacatgacaa tggatgaagt ccgagaattt gaacgagcca ctccaggaag caccaacaag
 1320
 aaaatcgcca ttttccacc tgcaatttct atctccagca tccccctgct gcctttcttc
 1380
 gtccgcagtg cgcttctag tgctccatcc accctctctc ccacagagcg acccgaaattt
 1440
 ctgtccctgc ccaaagatcg gccccggaaa aagtctgccc cagaaactct cacacttcca
 1500
 gaccctgaga aaaaagccac cctgaattta cccggcatgc actcttcaag taagccatgt
 1560
 cggcccaaat ctgagtaact ttatataaat atctcatggg gttttatatt ttcatttggt
 1620
 gttgtgtttt ttttttaaga atcttctgat agagaaaaag actgctttgt cactcaaaaa
 1680
 tgttctctcg accttaaaaa aaaaaaaaaa aaaaaaaaaa aaaa
 1724

<210> 5952

<211> 378

<212> PRT

<213> Homo sapiens

<400> 5952

Ala Arg Arg Val Gly Cys Phe Ala Leu Arg Leu Arg Ala Pro Gly Ser
 1 5 10 15
 Gly Arg Pro Ala Leu Arg Leu Gly Ser Ser Leu Ala Gly Leu Gly Gly
 20 25 30
 Ala Pro Arg Phe Pro Pro Gly Gly Phe Ala Ala Gly Arg Thr Met Leu
 35 40 45
 Leu Lys Glu Tyr Arg Ile Cys Met Pro Leu Thr Val Asp Glu Tyr Lys
 50 55 60
 Ile Gly Gln Leu Tyr Met Ile Ser Lys His Ser His Glu Gln Ser Asp
 65 70 75 80
 Arg Gly Glu Gly Val Glu Val Val Gln Asn Glu Pro Phe Glu Asp Pro
 85 90 95
 His His Gly Asn Gly Gln Phe Thr Glu Lys Arg Val Tyr Leu Asn Ser


```

          100          105          110
Lys Leu Pro Ser Trp Ala Arg Ala Val Val Pro Lys Ile Phe Tyr Val
   115          120          125
Thr Glu Lys Ala Trp Asn Tyr Tyr Pro Tyr Thr Ile Thr Glu Tyr Thr
   130          135          140
Cys Ser Phe Leu Pro Lys Phe Ser Ile His Ile Glu Thr Lys Tyr Glu
   145          150          155          160
Asp Asn Lys Gly Ser Asn Asp Thr Ile Phe Asp Asn Glu Ala Lys Asp
   165          170          175
Val Glu Arg Glu Val Cys Phe Ile Asp Ile Ala Cys Asp Glu Ile Pro
   180          185          190
Glu Arg Tyr Tyr Lys Glu Ser Glu Asp Pro Lys His Phe Lys Ser Glu
   195          200          205
Lys Thr Gly Arg Gly Gln Leu Arg Glu Gly Trp Arg Asp Ser His Gln
   210          215          220
Pro Ile Met Cys Ser Tyr Lys Leu Val Thr Val Lys Phe Glu Val Trp
   225          230          235          240
Gly Leu Gln Thr Arg Val Glu Gln Phe Val His Lys Val Val Arg Asp
   245          250          255
Ile Leu Leu Ile Gly His Arg Gln Ala Phe Ala Trp Val Asp Glu Trp
   260          265          270
Tyr Asp Met Thr Met Asp Glu Val Arg Glu Phe Glu Arg Ala Thr Gln
   275          280          285
Glu Ala Thr Asn Lys Lys Ile Gly Ile Phe Pro Pro Ala Ile Ser Ile
   290          295          300
Ser Ser Ile Pro Leu Leu Pro Ser Ser Val Arg Ser Ala Pro Ser Ser
   305          310          315          320
Ala Pro Ser Thr Pro Leu Ser Thr Asp Ala Pro Glu Phe Leu Ser Val
   325          330          335
Pro Lys Asp Arg Pro Arg Lys Lys Ser Ala Pro Glu Thr Leu Thr Leu
   340          345          350
Pro Asp Pro Glu Lys Lys Ala Thr Leu Asn Leu Pro Gly Met His Ser
   355          360          365
Ser Asp Lys Pro Cys Arg Pro Lys Ser Glu
   370          375

```

<210> 5953

<211> 777

<212> DNA

<213> Homo sapiens

<400> 5953

```

tttcggcagc agggccggag tcgtaagagg tctccgcgcc gctccctgta caaactggtg
60
ggctcgcgcg cttggaaaga ggctttccgg cagagatgcc tggagagaat gagaacacg
120
cgggacaggc tcctaaacag gtaccgccag ctgngaagca gtgggccagg gaattctcag
180
aacagctttc tagttcaaga ggtgatggaa gaagagtgga atgctttgca gtcagtggag
240
aattgtccag aagacttggc tcagctggag gagctgatag acatggctgt gctggaggaa
300
attcaacagg agctgatcaa ccaagagcag tccatcatca gcgagtatga gaagagcttg
360

```

cagtttgatg aaaagtgtct cagcatcatg ctggtctgagt gggaggcaaa cccactcatc
 420
 tgtccctgtat gtacaaagcc tgtgatactt gggctgtgat cctctagagc cagcttggac
 480
 tcacatcatt ctatgggggtt gaagacaact cattccctct gaggagcctt gtacatacaa
 540
 gccttttatt tataaettat ttgtattga aactttttaa caatactgaa gaaaaaaaaa
 600
 cttttccgac atctgttctt ggtcttttgt gacgcagggtt gaagggggag gaatagaaaa
 660
 agacaaaactg ccttggagga gataaaccaa ttttatgtct atcatgttat acaaaaatct
 720
 agaaaataata gatttgtaca gaaaaaaatg ataataaatg agaacacaaa acatata
 777

<210> 5954

<211> 152

<212> PRT

<213> Homo sapiens

<400> 5954

Phe Arg His Glu Ala Arg Ser Arg Lys Arg Ser Pro Arg Arg Ser Leu
 1 5 10 15
 Tyr Lys Leu Val Gly Ser Pro Pro Trp Lys Glu Ala Phe Arg Gln Arg
 20 25 30
 Cys Leu Glu Arg Met Arg Asn Ser Arg Asp Arg Leu Leu Asn Arg Tyr
 35 40 45
 Arg Gln Leu Xaa Ser Ser Gly Pro Gly Asn Ser Gln Asn Ser Phe Leu
 50 55 60
 Val Gln Glu Val Met Glu Glu Trp Asn Ala Leu Gln Ser Val Glu
 65 70 75 80
 Asn Cys Pro Glu Asp Leu Ala Gln Leu Glu Glu Leu Ile Asp Met Ala
 85 90 95
 Val Leu Glu Glu Ile Gln Gln Glu Leu Ile Asn Gln Glu Gln Ser Ile
 100 105 110
 Ile Ser Glu Tyr Glu Lys Ser Leu Gln Phe Asp Glu Lys Cys Leu Ser
 115 120 125
 Ile Met Leu Ala Glu Trp Glu Ala Asn Pro Leu Ile Cys Pro Val Cys
 130 135 140
 Thr Lys Pro Val Ile Leu Gly Leu
 145 150

<210> 5955

<211> 1459

<212> DNA

<213> Homo sapiens

<400> 5955

nncaattgga ctgcattatc aaacacatgt gctatgtaca tcctcagtcg acctgccagc
 60
 agatatcctg gagggctcat gagtgaattt agtccaagat ttaaagccct gcccccaggt
 120
 gctcagcctg tgatctgtat ccactcagca tgcacttggg cagatgattt gtctgtgtgc
 180

tacccttccc cccatattac catacatatg caccgacgga ccagcagcga cggtagcagc
 240
 agcatggccg cgatctatgg ggggtgtagag gggggagcca cagatccga ggtcctttta
 300
 gtctcagagg atgggaagat cctggcagaa gcagatggac tgagcacaaa ccactggctg
 360
 atcggggacag acaagtgtgt ggagaggatc aatgagatgg tgaacagggc caaacggaaa
 420
 gcaggggttg atcctctggt acgctgcga agcttgggcc tatctctgag cggtaggggac
 480
 caggaggacg cggggaggat cctgatcgag gagctgaggg accgatttcc ctacctgagt
 540
 gaaagctact taatcaccac cgatgccgcg ggctccatcg ccacagctac accgagtggt
 600
 ggagttgtgc tcatatctgg aacaggctcc aactgcaggc tcatcaacc tgatggctcc
 660
 gagagtggtc gcggcggctg gggccatatg atgggtgatg agggttcagc cctctctgct
 720
 ccctcagcct actggatcgc acaccaagca gtgaaaatag tgtttgactc cattgacaac
 780
 ctagggcggc ctccctcatga tatcggtcac gtcaaacagg ccattgtcca ctatttccag
 840
 gtgccagatc ggctagggat actcactcac ctgtataggg accttgataa atgcagggttt
 900
 gctgggtttt gccggaataa tgcagaaggt gctcagcagg gagaccccc ttcccgcctat
 960
 atcttcaggga aggctgggga gatgctgggc agacacatcg tagcagtgtt gcccgagatt
 1020
 gaccgcgtct tgttccaggc caagattgga ctcccatcc tgtgcgtggg ctctgtgtgg
 1080
 aagagctggg agctgctgaa ggaagggttt cttttggcgc tgaccaggc gagagagatc
 1140
 caggctcaga acttcttctc cagcttcacg ctgatgaagc tgaggcactc ctccgctctg
 1200
 ggtggggcca gcctaggggc caggcacatc gggcacctcc tcccatgga ctatagcgcc
 1260
 aatgccattg ccttctattc ctacaccttt tctaggggg ctggtcccgcc ctccaccccc
 1320
 tccaagctca gtggacactg ggtctgaaa gaggagctc tttgcttcct ttctcctttt
 1380
 tacaaaaaca aacatagaag aaaataaatg cactttatcc actcccaaa aaaaaaaaaa
 1440
 aaaaaaaaaa aagtcgacg
 1459

<210> 5956

<211> 431

<212> PRT

<213> Homo sapiens

<400> 5956

Xaa Asn Trp Thr Ala Leu Ser Asn Thr Cys Ala Met Tyr Ile Leu Ser
 1 5 10 15
 Ala Pro Ala Ser Arg Tyr Pro Gly Gly Leu Met Ser Glu Phe Ser Pro

Arg	Phe	Lys	20	Ala	Leu	Pro	Pro	Gly	25	Ala	Gln	Pro	Val	Ile	Cys	Ile	His
Ser	Ala	Cys	35	Thr	Trp	Ala	Asp	Asp	40	Leu	Ser	Val	Cys	Tyr	Pro	Ser	Pro
His	Ile	Thr	50	Ile	His	Met	His	Gly	55	Gly	Thr	Ser	Ser	Asp	Gly	Ser	Ser
Ser	Met	Ala	65	Ala	Ile	Tyr	Gly	Gly	70	Val	Glu	Gly	Gly	Gly	Thr	Arg	Ser
Glu	Val	Leu	85	Leu	Val	Ser	Glu	Asp	90	Gly	Lys	Ile	Leu	Ala	Glu	Ala	Asp
Gly	Leu	Ser	100	Thr	Asn	His	Trp	Leu	105	Ile	Gly	Thr	Asp	Lys	Cys	Val	Glu
Arg	Ile	Asn	115	Glu	Met	Val	Asn	Arg	120	Ala	Lys	Arg	Lys	Ala	Gly	Val	Asp
Pro	Leu	Val	130	Pro	Leu	Arg	Ser	Leu	135	Gly	Leu	Ser	Leu	Ser	Gly	Gly	Asp
Gln	Glu	Asp	145	Ala	Gly	Arg	Ile	Leu	150	Ile	Glu	Glu	Leu	Arg	Asp	Arg	Phe
Pro	Tyr	Leu	165	Ser	Glu	Ser	Tyr	Leu	170	Ile	Thr	Thr	Asp	Ala	Ala	Gly	Ser
Ile	Ala	Thr	180	Ala	Thr	Pro	Asp	Gly	185	Gly	Val	Val	Leu	Ile	Ser	Gly	Thr
Gly	Ser	Asn	195	Cys	Arg	Leu	Ile	Asn	200	Pro	Asp	Gly	Ser	Glu	Ser	Gly	Cys
Gly	Gly	Trp	210	Gly	His	Met	Met	Gly	215	Asp	Glu	Gly	Ser	Ala	Leu	Ser	Ala
Pro	Ser	Ala	225	Tyr	Trp	Ile	Ala	His	230	Gln	Ala	Val	Lys	Ile	Val	Phe	Asp
Ser	Ile	Asp	245	Asn	Leu	Glu	Ala	Ala	250	Pro	His	Asp	Ile	Gly	Tyr	Val	Lys
Gln	Ala	Met	260	Phe	His	Tyr	Phe	Gln	265	Val	Pro	Asp	Arg	Leu	Gly	Ile	Leu
Thr	His	Leu	275	Tyr	Arg	Asp	Phe	Asp	280	Lys	Cys	Arg	Phe	Ala	Gly	Phe	Cys
Arg	Lys	Ile	290	Ala	Glu	Gly	Ala	Gln	295	Gln	Gly	Asp	Pro	Leu	Ser	Arg	Tyr
Ile	Phe	Arg	305	Lys	Ala	Gly	Glu	Met	310	Leu	Gly	Arg	His	Ile	Val	Ala	Val
Leu	Pro	Glu	325	Ile	Asp	Pro	Val	Leu	330	Phe	Gln	Gly	Lys	Ile	Gly	Leu	Pro
Ile	Leu	Cys	340	Val	Gly	Ser	Val	Trp	345	Lys	Ser	Trp	Glu	Leu	Leu	Lys	Glu
Gly	Phe	Leu	355	Leu	Ala	Leu	Thr	Gln	360	Gly	Arg	Glu	Ile	Gln	Ala	Gln	Asn
Phe	Phe	Ser	370	Ser	Phe	Thr	Leu	Met	375	Lys	Leu	Arg	His	Ser	Ser	Ala	Leu
Gly	Gly	Ala	385	Ser	Leu	Gly	Ala	Arg	390	His	Ile	Gly	His	Leu	Leu	Pro	Met
Asp	Tyr	Ser	405	Ala	Asn	Ala	Ile	Ala	410	Phe	Tyr	Ser	Tyr	Thr	Phe	Ser	
			420						425						430		

<212> DNA

<213> Homo sapiens

<400> 5957

atggcggagtg cgttgagggtc tccgcgcgcgc tccctgtaca aactggtggg ctgcgcgcct
 60
 tggaaagagg ctttccgca gagatgcctg gagagaatga gaaacagccg ggacaggctc
 120
 ctaaacaggt accgccaggc tggaaagcagt gggccaggga attctcagaa cagctttcta
 180
 gttcaagagg tgatggaaga agagtggaat gctttgcagt cagtggagaa ttgtccagaa
 240
 gacttggtct agctggagga gctgatagac atggctgtgc tggaggaaat tcaacaggag
 300
 ctgacaaacc aagccctgtg atacttgggc tgtgatcctc tagagccagc ttggactcac
 360
 atcattctat ggggttgaag acaactcatt ccctctgagg agccttgtag atacaagcct
 420
 ttattattata acttattttg tattgaaact tttaaacaat actgaagaaa aaaaaacttt
 480
 tccgacatct gttcttggtc tttttgtaca caggttgaag ggggaggaat agaaaagac
 540
 aaactgcctt ggaggagata aaccaatttt atgtctatca tgtatatacaa aaatctagaa
 600
 ataataagatt tgtacagaaa aaaaatgataa taaatgagag caaaaaacat ataattttaa
 660
 tctgggtattt tttcccccatt gatatttaga tgataatcat ttcaaagcac atgtctagct
 720
 tcagagttagg atttgttcac tggccaaagc ctgccatgaa actatggctt tcagcatctg
 780
 tctgctctac tggctcttga caaaactctt gaggtcttca agaaaagtaa tgtactcctg
 840
 gtgctccagg gctgt
 855

<210> 5958

<211> 106

<212> PRT

<213> Homo sapiens

<400> 5958

Met Ala Glu Ser Leu Arg Ser Pro Arg Arg Ser Leu Tyr Lys Leu Val
 1 5 10 15
 Gly Ser Pro Pro Trp Lys Glu Ala Phe Arg Gln Arg Cys Leu Glu Arg
 20 25 30
 Met Arg Asn Ser Arg Asp Arg Leu Leu Asn Arg Tyr Arg Gln Ala Gly
 35 40 45
 Ser Ser Gly Pro Gly Asn Ser Gln Asn Ser Phe Leu Val Gln Glu Val
 50 55 60
 Met Glu Glu Glu Trp Asn Ala Leu Gln Ser Val Glu Asn Cys Pro Glu
 65 70 75 80
 Asp Leu Ala Gln Leu Glu Glu Leu Ile Asp Met Ala Val Leu Glu Glu
 85 90 95
 Ile Gln Gln Glu Leu Ile Asn Gln Gly Leu

100

105

<210> 5959
 <211> 830
 <212> DNA
 <213> Homo sapiens

<400> 5959
 gatgagaaga ttccagccaat attagacaaa gtaggctctt tggtaaaccg aaggetttaa
 60
 ttttctcggg gccttatgat gctgggtctt gagaaagtag ccactgatat tccttgctcg
 120
 ctatatgatg acaatctctt ctgtcatttg gtggatgaag tactcttggt tgaaggagg
 180
 ctacacagtg ttcatggcta tcctggcact ttgctaatt gtatgcata tctatcagag
 240
 gaaacctggt ttcaaagatg ggtgacgggg gagagaaaaa ttgctcttca aaaaatggac
 300
 tcaatgcttt cctcagaagc tgcctgggta tcgcaatata aggatatac tgacgtggat
 360
 gaaatgaaag ttccagattg tgcagaaact tttatgactc tactcttggt tataactgac
 420
 aggtataaaa atcttccac agcttcccg aagcttcagt tcctggagtt acagaaggac
 480
 ttagtagatg attttaggat acgattaaca caagtatga aagaagagac tagagcttcc
 540
 ctgggcttgc gatactgtgc aattcttaat gctgtgaact acatctcaac agtactagca
 600
 gattgggctg acaatgtttt ctttctacaa cttcaacagg ctgcactgga ggtgttgga
 660
 gagaataata ctctgagtaa attgcagcta ggacagctag cctctatgga gagctctgtc
 720
 tttgatgaca tgattaacct cttagaacgt ttaaagcatg atatgttgac ccgtcaagta
 780
 gccacgcttt ttagagaagt taaagatgct gcaaaattgt ataaaaaga
 830

<210> 5960
 <211> 251
 <212> PRT
 <213> Homo sapiens

<400> 5960
 Met Met Leu Val Leu Glu Lys Leu Ala Thr Asp Ile Pro Cys Leu Leu
 1 5 10 15
 Tyr Asp Asp Asn Leu Phe Cys His Leu Val Asp Glu Val Leu Leu Phe
 20 25 30
 Glu Arg Glu Leu His Ser Val His Gly Tyr Pro Gly Thr Phe Ala Asn
 35 40 45
 Cys Met His Ile Leu Ser Glu Glu Thr Cys Phe Gln Arg Trp Val Thr
 50 55 60
 Gly Glu Arg Lys Phe Ala Leu Gln Lys Met Asp Ser Met Leu Ser Ser
 65 70 75 80
 Glu Ala Ala Trp Val Ser Gln Tyr Lys Asp Ile Thr Asp Val Asp Glu

[illegible]

<210> 5961

<211> 585

<212> DNA

<213> Homo sapiens

<400> 5961

gctcgggggct gcaagtcgcct ctaatgggtgc ctgtgaataa ccaactgcatt cagcctggggc
 60 aatgaagcga gaccccgctc taaaaaataa aattgagggg tcaaaagagga tgcacaactt
 120 aattagagac tgagacaggg caggggtgcg aggtgtctgc atgcgtttca tgtggatgcc
 180 cgtgtctatt ctggcctgct cctgggcccc ctcccactc agccctggct gatgagaatg
 240 gacaggggac tccctctctg tctccctgtg cagcgtcggc ccaggaggta gcagagcagt
 300 atatgcacat ctgggtgtgc cctcctgcat gtcccacac atctgtcatt cctgtctttg
 360 cacacctatg tgactccgcg atgtttgtgt cttatgtgtg cccatgcatg ctcccactc
 420 gaccttcgct gttctcoggt gtctgtgtgc ggccagtcct gccttcactc tctcatgggt
 480 ggccctggga gcatgtctgg ctcccagca ggtgagctca ggagataaga tgaagaatgc
 540 aacgcccaat ggtcaagaag actccaaggc cccagatggg tccac
 585

<210> 5962

<211> 114

<212> PRT

<213> Homo sapiens

<400> 5962

```

Met Cys Gly Asp Met Gln Glu Gly Thr Pro Arg Cys Ala Tyr Thr Ala
 1             5             10             15
Leu Leu Pro Pro Gly Pro Thr Leu His Arg Asp Thr Arg Arg Glu Ser
      20             25             30
Leu Ser His Ser His Gln Pro Gly Leu Ser Gly Glu Gly Ala Gln Glu
      35             40             45
Gln Ala Arg Ile Asp Thr Gly Ile His Met Lys Arg Met Gln Thr Pro
      50             55             60
Arg His Pro Ala Leu Ser Gln Ser Leu Ile Lys Phe Gly Ile Leu Phe
      65             70             75             80
Asp Pro Ser Ile Phe Phe Leu Glu Thr Gly Ser Arg Phe Ile Ala Gln
      85             90             95
Ala Glu Cys Ser Gly Tyr Ser Gln Ala Pro Leu Glu Arg Thr Ala Ala
      100             105             110
Pro Ser

```

<210> 5963

<211> 1288

<212> DNA

<213> Homo sapiens

<400> 5963

```

atggggctgt ttgaaagac ccaggagaag ccgccaaaag aactgggtcaa tgagtgggtca
60
ttgaagataa gaaaggaaat gagagttggt gacaggcaaa taagggtatat ccaaagagaa
120
gaagaaaaag tgaacacgatc tgtgaaagat gctgccaaag agggccagaa ggatgtctgc
180
atagttctgg ccaaggagat gatcagggtca aggaaggctg tgagcaagct gtagcatcc
240
aaagcacaca tgaactcagt gctcatgggg atgaagaacc agctcgcggt cttgcgagtg
300
gctggttccc tgcagaagag cacagaagtg atgaaggcca tgcaaagtct tgtgaagatt
360
ccagagattc agggccaccat gagggtgttg tccaaagaaa tgatgaaggc tgggatcata
420
gaggagatgt tagaggacac ttttgaaagc atggacgatc aggaagaaat ggaggagaa
480
gcagaaatgg aaattgacag aattctcttt gaaattacag caggggacctt gggcaaagca
540
ccagtaaaag tgactgatgc ccttcacag ccagaacctc caggagcgat ggctgcctca
600
gaggatgagg aggaggagga agaggctctg gaggccatgc agtcccgctt ggccacactc
660
cgcgctagg ggctgcctac cccgctgggt gtgcacacac tcctctcaag agctgccatt
720
ttatgtgtct cttgcactac acctctgttg tgaggactac cttttggag aaggttctgt
780
ttgtctcttt tcattctctg cccagggtttt gggatcgcaa agggattgtt cttataaaag
840
tggcataaat aaatgatca ttttaggag tatagacaga tatatcttat tgtggggagg
900

```


ggaaagaaat ccattctgctc atgaagcaact tctgaaaata taggtgattg cctgaatgtc
 960
 gaagactcta cttttgtcta taaaacacta tataaatgaa ttttaataaa tttttgcttc
 1020
 agcacttggc cccattgtag attgccctgt gcagtaaaact ttcaaggtgt cagctgcccc
 1080
 agattgcttc atttctggg tctggaaaga gttgctatgg ccaggcatat gggatttggga
 1140
 agctcagcag aagtgaactc tgctctgtgg ttgctgtccc ccggctttca cagacatggg
 1200
 atggcagcca ttcttttacc tatttaacca agaggatgct ggggaattgt gctgctgttc
 1260
 ctgttggtctg gtggctgcat tatgtccg
 1288

<210> 5964

<211> 222

<212> PRT

<213> Homo sapiens

<400> 5964

Met Gly Leu Phe Gly Lys Thr Gln Glu Lys Pro Pro Lys Glu Leu Val
 1 5 10 15
 Asn Glu Trp Ser Leu Lys Ile Arg Lys Glu Met Arg Val Val Asp Arg
 20 25 30
 Gln Ile Arg Asp Ile Gln Arg Glu Glu Lys Val Lys Arg Ser Val
 35 40 45
 Lys Asp Ala Ala Lys Lys Gly Gln Lys Asp Val Cys Ile Val Leu Ala
 50 55 60
 Lys Glu Met Ile Arg Ser Arg Lys Ala Val Ser Lys Leu Tyr Ala Ser
 65 70 75 80
 Lys Ala His Met Asn Ser Val Leu Met Gly Met Lys Asn Gln Leu Ala
 85 90 95
 Val Leu Arg Val Ala Gly Ser Leu Gln Lys Ser Thr Glu Val Met Lys
 100 105 110
 Ala Met Gln Ser Leu Val Lys Ile Pro Glu Ile Gln Ala Thr Met Arg
 115 120 125
 Glu Leu Ser Lys Glu Met Met Lys Ala Gly Ile Ile Glu Glu Met Leu
 130 135 140
 Glu Asp Thr Phe Glu Ser Met Asp Asp Gln Glu Glu Met Glu Glu Glu
 145 150 155 160
 Ala Glu Met Glu Ile Asp Arg Ile Leu Phe Glu Ile Thr Ala Gly Ala
 165 170 175
 Leu Gly Lys Ala Pro Ser Lys Val Thr Asp Ala Leu Pro Glu Pro Glu
 180 185 190
 Pro Pro Gly Ala Met Ala Ala Ser Glu Asp Glu Glu Glu Glu Glu
 195 200 205
 Ala Leu Glu Ala Met Gln Ser Arg Leu Ala Thr Leu Arg Ser
 210 215 220

<210> 5965

<211> 1011

<212> DNA

<213> Homo sapiens

```

<400> 5965
gggaacgggt cttgtggctt tgttcccg c gaagaggaga tggcggagtc gttgaggtct
60
ccgcgccgct ccctgtacaa actggtgggc tcgcccctt ggaaagaggc tttccggcag
120
agatgcctgg agagaatgag aaacagccgg gacaggctcc taaacaggta ccgcaggctt
180
ggaagcagtg ggcagggaa ttctcagaac agctttctag ttcaagaggt gatggaagaa
240
gagtggaatg ctttgcagnn tcagtgggag aattgtccag aagacttggc tcagtgggag
300
gagctgatag acatggctgt gctggaggaa attcaacagg agctgatcaa ccaagagcag
360
tccatcatca gcgagtatga gaagagcttg cagtttgatg aaaagtgtct cagcatcatg
420
ctggctgagt gggaggcaaa cccactcctc tgcctctgat gtacaaagta caacctgaga
480
atcacaagcg gtgtggtggt gtgtcagtggt ggctgttcca tcccatctca ttcttctgag
540
ttgacagagc agaagcttcg tgccctgtta gagggtagta taaatgagca cagtgcacat
600
tgtccccaca cacctgaatt ttcagtcact ggaggaaacg aagaaaagtc cagtcttctc
660
atgagctgtc tggcctgtga tacttgggct gtgatcctct agagccagct tggactcaca
720
tcattctatg ggggtgaaga caactcattc cctctgagga gccttgtaca tacaagcctt
780
ttatttataa cttattttgt attgaaactt ttaacaata ctgaagaaaa aaaaactttt
840
ccgacatctg ttcttggctt tttgtgacgc aggttgaagg gggagggaata gaaaaagaca
900
aactgccttg gaggagataa accaatttta tgcctatcat gttatacaaa aatctagaaa
960
taatagattt gtacagaaaa aaatgataat aaatgagaac acaaaacata t
1011

```

```

<210> 5966
<211> 233
<212> PRT
<213> Homo sapiens

```

```

<400> 5966
Gly Asn Gly Ser Cys Gly Phe Val Ser Arg Glu Glu Glu Met Ala Glu
1 5 10 15
Ser Leu Arg Ser Pro Arg Arg Ser Leu Tyr Lys Leu Val Gly Ser Pro
20 25 30
Pro Trp Lys Glu Ala Phe Arg Gln Arg Cys Leu Glu Arg Met Arg Asn
35 40 45
Ser Arg Asp Arg Leu Leu Asn Arg Tyr Arg Gln Ala Gly Ser Ser Gly
50 55 60
Pro Gly Asn Ser Gln Asn Ser Phe Leu Val Gln Glu Val Met Glu Glu
65 70 75 80
Glu Trp Asn Ala Leu Gln Xaa Gln Trp Xaa Asn Cys Pro Glu Asp Leu

```

	85		90		95
Ala	Gln	Leu	Glu	Glu	Leu
	100	Ile	Asp	Met	Ala
Gln	Glu	Leu	Ile	Val	Leu
	115	Gln	Ser	Ile	Glu
Ser	Leu	Gln	Ile	Val	Leu
	130	Gln	Ser	Ile	Glu
Glu	Ala	Asn	Pro	Leu	Ile
	145	Gln	Ser	Ile	Val
Ile	Thr	Ser	Gly	Val	Val
	165	Val	Val	Val	Cys
His	Ser	Ser	Glu	Leu	Thr
	180	Glu	Gln	Lys	Leu
Ser	Ile	Asn	Glu	His	Ser
	195	Ala	His	Cys	Pro
Val	Thr	Gly	Gly	Thr	Glu
	210	Thr	Glu	Lys	Ser
Ala	Cys	Asp	Thr	Trp	Ala
	225	Val	Ile	Leu	
		230			

<210> 5957

<211> 1806

<212> DNA

<213> Homo sapiens

<400> 5957

natttttaat ctctttttaa aaaactcaat ttttttttct acttactgat taaatcttga
 60
 gtcttttgcc tccagtgat cagtgatttt tcagcagaaa atctttcttc tccattgctt
 120
 tgtgcttttg ttgctaggca gtcaacagca gggctactaa agcacttcta atttagacaa
 180
 atcttttctc ctattttaga aatggatttc aatgggtgtc agtttggttg cagaaaccta
 240
 ctgaaagtga gcatgttttt gaacacatta acaccgaagt tctacgtggc cctaacaggc
 300
 acttctctac taatatcagg gcttattttg atatttgaat ggtggatttt tcgcaaatac
 360
 ggaacttcac tcattgaaca agtctcagta agccacttgc gccccttctt gggaggggtt
 420
 gacaacaact cttocaacaa ttctaatttc agtaacgggg actcagattc caataggcaa
 480
 agtgtctcag aatgcaaagt atggcgaaat ccactaaatt tatttagggg tgctgaatac
 540
 aatcgggtata cttgggtgac aggacgagag cctcttactt actatgacat gaatctctct
 600
 gcccaagacc accagacatt ctttacttgt gactcggacc atctgcgtcc cgcagatgca
 660
 ataatgcaga aagcctggag agagagaaac ccccaagcta ggatttctgc agtcatgaa
 720
 gccttgagaa taaatgagac gagacaccaa tgtcttggtg tacatcaaaa gaaggctagc
 780
 aatgtgtgcc agaagactcg ggaggaccag ggaagcaaa cccttctgga actacaagca
 840

tatgctgatg ttcaggcagt cttagcaaa g tatgatgata taagcttacc aaagtcagca
 900
 acaatatgct acacagctgc tttgctcaaa gcaagagctg tctctgacaa attctctcct
 960
 gaggctgcat ctccggcggg gctgagcaca gcagagatga atgcagtaga ggccattcat
 1020
 agagctgtgg aattcaatcc tcatgtgcc aaatacctac tagaaatgaa aagcttaatc
 1080
 ctacccccag aacatatcct gaagagagga gacagtgaag caatagcata tgcattcttt
 1140
 catcttgac actggaagag agtggaagg gctttgaatc ttttgattg tacgtgggaa
 1200
 ggcacttttc ggatgatccc ttatcccttg gaaaaggggc acctatttta tccttaccga
 1260
 atctgtacag aaacagcaga ccgagagctg cttccatctt tccatgaagt ctacgtttac
 1320
 ccaaagaagg agcttccctt cttttatttc tttactgctg gattattgtc cttcacagcc
 1380
 atgctggccc tctgacaca tcagttccc gaaactatgg gggctcttcg aaaaagctgtg
 1440
 agtggttgcc tagaggagg ccttgaggaa tggatgggga aagccaaggg cataaaagca
 1500
 gctgagaga aatgggggtg ccttacagaa atgggtacga gcctgcaaa atcattgtc
 1560
 accatttaat tttcatgatc gtcaatggaa tcaaaagcatt aagggtcaaa tgagaaagt
 1620
 cagggttgta ctgcagtcct tgctctatt cacaacaaat tcttagcagt ttccaaaaaa
 1680
 tgcaggaggt ccaaaaggat ggaatgattt aggaatcct agcaaatgaa aatgtgtggg
 1740
 aagttactcg gttttctgta aattgaatga cattatttcc aatcggttga tattgtgggt
 1800
 ctttcc
 1806

<210> 5968

<211> 434

<212> PRT

<213> Homo sapiens

<400> 5968

Met Asp Phe Asn Gly Val Gln Phe Val Cys Arg Asn Leu Leu Lys Val
 1 5 10 15
 Ser Met Phe Leu Asn Thr Leu Thr Pro Lys Phe Tyr Val Ala Leu Thr
 20 25 30
 Gly Thr Ser Ser Leu Ile Ser Gly Leu Ile Leu Ile Phe Glu Trp Trp
 35 40 45
 Tyr Phe Arg Lys Tyr Gly Thr Ser Phe Ile Glu Gln Val Ser Val Ser
 50 55 60
 His Leu Arg Pro Leu Leu Gly Gly Val Asp Asn Asn Ser Ser Asn Asn
 65 70 75 80
 Ser Asn Ser Ser Asn Gly Asp Ser Asp Ser Asn Arg Gln Ser Val Ser
 85 90 95
 Glu Cys Lys Val Trp Arg Asn Pro Leu Asn Leu Phe Arg Gly Ala Glu

```

      100      105      110
Tyr Asn Arg Tyr Thr Trp Val Thr Gly Arg Glu Pro Leu Thr Tyr Tyr
      115      120      125
Asp Met Asn Leu Ser Ala Gln Asp His Gln Thr Phe Phe Thr Cys Asp
      130      135      140
Ser Asp His Leu Arg Pro Ala Asp Ala Ile Met Gln Lys Ala Trp Arg
145      150      155      160
Glu Arg Asn Pro Gln Ala Arg Ile Ser Ala Ala His Glu Ala Leu Glu
      165      170      175
Ile Asn Glu Thr Arg His Gln Cys Leu Gly Val His Gln Lys Lys Ala
      180      185      190
Ser Asn Val Cys Gln Lys Thr Arg Glu Asp Gln Gly Ser Lys Ala Leu
      195      200      205
Leu Glu Leu Gln Ala Tyr Ala Asp Val Gln Ala Val Leu Ala Lys Tyr
      210      215      220
Asp Asp Ile Ser Leu Pro Lys Ser Ala Thr Ile Cys Tyr Thr Ala Ala
225      230      235      240
Leu Leu Lys Ala Arg Ala Val Ser Asp Lys Phe Ser Pro Glu Ala Ala
      245      250      255
Ser Arg Arg Gly Leu Ser Thr Ala Glu Met Asn Ala Val Glu Ala Ile
260      265      270      275
His Arg Ala Val Glu Phe Asn Pro His Val Pro Lys Tyr Leu Leu Glu
      280      285      290
Met Lys Ser Leu Ile Leu Pro Pro Glu His Ile Leu Lys Arg Gly Asp
      295      300      305
Ser Glu Ala Ile Ala Tyr Ala Phe Phe His Leu Ala His Trp Lys Arg
310      315      320      325
Val Glu Gly Ala Leu Asn Leu Leu His Cys Thr Trp Glu Gly Thr Phe
      330      335      340
Arg Met Ile Pro Tyr Pro Leu Glu Lys Gly His Leu Phe Tyr Pro Tyr
      345      350      355
Pro Ile Cys Thr Glu Thr Ala Asp Arg Glu Leu Leu Pro Ser Phe His
      360      365      370
Glu Val Ser Val Tyr Pro Lys Lys Glu Leu Pro Phe Phe Ile Leu Phe
      375      380      385
Thr Ala Gly Leu Cys Ser Phe Thr Ala Met Leu Ala Leu Leu Thr His
      390      395      400
Gln Phe Pro Glu Leu Met Gly Val Phe Ala Lys Ala Val Ser Val Cys
      405      410      415
Leu Glu Gly Gly Leu Gly Glu Trp Met Gly Lys Ala Lys Gly Ile Lys
      420      425      430
Ala Ala

```

<210> 5969

<211> 429

<212> DNA

<213> Homo sapiens

<400> 5969

cgggcgcccg tgtgtgacgt cagggagctg caggcccagg aagccttgca gaacggccag

60

ctgggcgggc ggggaaggggt cccggtctg cagcctgggg tcttgccag ccaggccatg

120

attgagaaga tcctgagcga ggacccccgg tggcaagatg ccaacttcgt gctgggcagc
 180
 tacaagacgg agcagtgtccc gaagccgcga cgcctgtgcc gccagggtga tgcgtgccca
 240
 cactaccaca atagccggga caggcggcgc aacccccggc gggtccagta cagggtccag
 300
 ccctgcccca gcgtgaagca cggggatgag tggggggaaac cctcacgctg cgatggcggc
 360
 gacggctgcc agtattgcc ctcccgcacg gacgacagt tccatccca gatctacaaa
 420
 tctacaaa
 429

<210> 5970

<211> 143

<212> PRT

<213> Homo sapiens

<400> 5970

Arg Pro Pro Val Cys Asp Val Arg Glu Leu Gln Ala Gln Glu Ala Leu
 1 5 10 15
 Gln Asn Gly Gln Leu Gly Gly Gly Glu Gly Val Pro Asp Leu Gln Pro
 20 25 30
 Gly Val Leu Ala Ser Gln Ala Met Ile Glu Lys Ile Leu Ser Glu Asp
 35 40 45
 Pro Arg Trp Gln Asp Ala Asn Phe Val Leu Gly Ser Tyr Lys Thr Glu
 50 55 60
 Gln Cys Pro Lys Pro Pro Arg Leu Cys Arg Gln Gly Tyr Ala Cys Pro
 65 70 75 80
 His Tyr His Asn Ser Arg Asp Arg Arg Asn Pro Arg Arg Phe Gln
 85 90 95
 Tyr Arg Ser Thr Pro Cys Pro Ser Val Lys His Gly Asp Glu Trp Gly
 100 105 110
 Glu Pro Ser Arg Cys Asp Gly Gly Asp Gly Cys Gln Tyr Cys His Ser
 115 120 125
 Arg Thr Glu Gln Gln Phe His Pro Glu Ile Tyr Lys Ser Thr Lys
 130 135 140

<210> 5971

<211> 565

<212> DNA

<213> Homo sapiens

<400> 5971

gcgcgcccat ttccgagagt tccctcagcc ccaggactct ggaatgagcc gttttcatgc
 60
 tgtgaatagc acagtcttcc ctttcatgtg gcaactgaagt taaaatgcat agagctcttt
 120
 catgtccett aggtcagcta agccacatc agtgtccaaa taggcaacat cccattttta
 180
 tagatggtea tccccatttt agagatagct cctttttata tccccatttt acaggtgaag
 240
 gaattgagc acagaaggtt aggtcacttc tgcaagatga ccagctgaac caaaatttca
 300

gggcttcaaa caccaaatgt gttcctttgt cttccgtttc ccacttgctt cccagaggct
 360
 cagcaagtag cctctggcca ctgagcatcc tccgcccac ttgtctcctt gcctcctgat
 420
 cccaggactg tggccgtgga tgccagagcg aggatgtgaa tcctgttggg ttctgaagcc
 480
 cacacctacc ctcagccttg aagctgcagc aatggctgct tccagatgag cacacctcg
 540
 ggggtgcangc gtccagtgtc acgat
 565

<210> 5972

<211> 104

<212> PRT

<213> Homo sapiens

<400> 5972

Met	His	Arg	Ala	Leu	Ser	Cys	Pro	Leu	Gly	Gln	Leu	Ser	Pro	His	Gln
1				5				10					15		
Cys	Pro	Asn	Arg	Gln	His	Pro	Tyr	Phe	Ile	Asp	Gly	His	Pro	His	Phe
			20				25					30			
Arg	Asp	Ser	Ser	Leu	Leu	Tyr	Pro	His	Phe	Thr	Gly	Glu	Gly	Ile	Glu
			35				40					45			
Ala	Gln	Lys	Val	Arg	Ser	Leu	Leu	Gln	Asp	Asp	Gln	Leu	Asn	Gln	Asn
			50			55				60					
Phe	Arg	Ala	Ser	Asn	Thr	Lys	Cys	Val	Pro	Leu	Ser	Ser	Val	Ser	His
				70					75					80	
Leu	Leu	Pro	Arg	Gly	Ser	Ala	Ser	Ser	Leu	Trp	Pro	Leu	Ser	Ile	Leu
			85						90					95	
Pro	Pro	Thr	Leu	Leu	Pro	Ala	Ser								
							100								

<210> 5973

<211> 797

<212> DNA

<213> Homo sapiens

<400> 5973

gggcccagg ggcgtcttcc caacactggt cgcagtcatt gttggtataa cggctagaga
 60
 cgccagtgta gttagcatgg agggcagtg gaccgaaaa agacgtggaa aagctgcaa
 120
 aacgagcctt cgaatcatgg acgcgcgggc ccagctcctc ctccagagttc ctcactcggg
 180
 gccctcactc acatccgggg ccctcactca catccgggac cctcatcggg ggctctcacc
 240
 cacatccggg accctcatgc ctgggcggag gagggggggc ccttcattcg ggaccctgc
 300
 actccgtcgc cggaagtgcc acogagaagc gccggcctcg gggctgtcta cagcgcccg
 360
 ggagaggctg tgggtggccc gagcgcgagt gtgtaggta caggacagcg gccaggcccg
 420
 cccctccctt cgggtagtag ccggaagccg ttttggggtc gcagcggggg ggcagcttgt
 480

tttgccttca cgggagtaga aggaggcggc gtcgcgcgcg gccgacggta gttcgccttc
 540
 ccgagagtgc cgggaggccc ggggtgcgagg agggcctgtt tctcttcagc cctgttctat
 600
 tcacctcgcg gaccgagggc ccgcctcag gagccggcga cgtgccttg gtgcgagctg
 660
 gtctgtatgt cctcactggt ccttttggga ctttgccttg gcctcgttgc tctcaggatt
 720
 ccgggaaaag gccggtctag ctggtctgag ttagcgaagg gcctgacccc aaaagtggat
 780
 tttcctcgtt ccgaatt
 797

<210> 5974

<211> 107

<212> PRT

<213> Homo sapiens

<400> 5974

Met	Glu	Gly	Ser	Gly	Thr	Gly	Lys	Arg	Arg	Gly	Lys	Ala	Ala	Lys	Thr
1				5					10					15	
Ser	Leu	Arg	Ile	Met	Asp	Ala	Arg	Ala	Gln	Leu	Leu	Leu	Arg	Val	Pro
			20					25						30	
His	Pro	Gly	Pro	Ser	Leu	Thr	Ser	Gly	Ala	Leu	Thr	His	Ile	Arg	Asp
			35				40					45			
Pro	His	Pro	Gly	Leu	Ser	Pro	Thr	Ser	Gly	Thr	Leu	Met	Pro	Gly	Arg
			50			55				60					
Arg	Arg	Gly	Gly	Pro	Ser	Phe	Gly	Thr	Pro	Ala	Leu	Arg	Arg	Arg	Lys
				70					75					80	
Cys	His	Arg	Glu	Ala	Pro	Ala	Ser	Gly	Leu	Ser	Thr	Ala	Ala	Arg	Glu
			85					90						95	
Arg	Leu	Trp	Trp	Pro	Arg	Ala	Arg	Val	Cys	Arg					
			100					105							

<210> 5975

<211> 2175

<212> DNA

<213> Homo sapiens

<400> 5975

mntcaggtca ccacatacta ttatgttggg ttgcatatt tgatgatgcg tcgttaccag
 60
 gatgccatcc ggggtcttcgc caacatcctc ctctacatcc agaggaccaa gagcatgttc
 120
 cagagggcca cgtacaagta tgatgatgatt aacaagcaga atgagcagat gcatgcgctg
 180
 ctggccattg ccctcacgat gtaccccatg cgtatcatg agagcattca cctccagctg
 240
 cgggagaaat atggggacaa gatgttcgc atgtcttatc ccgctgatga ttatgagctc
 300
 gaggcggtt atgaccctta cgcttatccc agcgactatg atatgcacac aggagatcca
 360
 aagcaggacc ttgcttatga acgtcagtat gaacagcaaa cctatcaggt gatccctgag
 420

gtgatcaaaa acttcatcca gtatttccac aaaactgtct cagatttgat tgaccagaaa
480
gtgtatgagc tacaggccag tcgtgtctcc agtgatgtca ttgaccagaa ggtgtatgag
540
atccaggaca tctatgagaa cagctggacc aagctgactg aaagattctt caagaataca
600
ccttggcccg aggctgaagc cattgctcca caggttggca atgatgtctgt cttectgatt
660
ttatacaaa aattatacta caggcacata tatgccaaa tcagtggggg accttccctg
720
gagcagaggt ttgaatccta ttacaactac tgcaatctct tcaactacat tcttaatgcc
780
gatggctctg ctccccttga actaccaac cagtggctct gggatattat cgatgagttc
840
atctaccagt ttcagtcatt cagtcagtac cgctgtaaga ctgccaagaa gtcagaggag
900
gagattgact ttcttcgttc caatccaaa atctggaatg ttcatagtgt cctcaatgtc
960
cttcattccc tggtagacaa atccaacatc aaccgacagt tggaggata cacaagcgga
1020
ggtgaccctg agagtgtggc tggggagtat gggcggcact ccctctcaa aatgcttggg
1080
tacttcagcc tggtcgggct tctccgctg cactccctg taggagata ctaccaggcc
1140
atcaaggctg tggagaacat cgaactgaac aagaagagta tgtattcccg tgtgccagag
1200
tgccaggctc ccacatacta ttatgttggg ttgcatatt tgatgatgcg tcgttaccag
1260
gatgccatcc gggctcttcg caacatctc ctctacatcc agaggaccaa gagcatgttc
1320
cagaggacca cgtacaagta tgagatgatt aacaagcaga atgagcagat gcatgcgctg
1380
ctggccattg ccctcacgat gtaccccatg cgtatcgatg agagcattca cctccagctg
1440
cgggagaaat atggggacaa gatgttgcgc atgcagaaa gtgaccaca agtctatgaa
1500
gaacttttca gttactcctg ccccaagttc ctgtcgctg tagtgcccaa ctatgataat
1560
gtgcacccca actaccacaa agagcccttc ctgcagcagc tgaagggtgt ttctgatgaa
1620
gtacagcagc agggccagct ttcaaccatc cgcagcttcc tgaagctcta caccaccatg
1680
cctgtggcca agctggctgg ctctctggac ctcacagagc aggagtccg gatccagctt
1740
ctgtcttca aacacaagat gaagaacctc gtgtggacca gcggtatctc agccctggat
1800
ggtgaatttc agtcagcctc agaggttgac ttctacattg ataaggacat gatccacatc
1860
gcgacaccca aggtcgccag gcgttatggg gattttctca tccgtcagat ccacaaattt
1920
gaggagctta atcgaaacct gaagaagatg ggacagagac ctgtatgata ttacacacac
1980
ttcagggaac tgttttgatg tattataggc aggaagtgtt ttgctaccg tgaaccttt
2040

acctagatca gccatcagcc tgtcaactca gttaacaagt taaggaccga agtgtttcaa
 2100
 gtggatctca gtaaaggatc ttggagccca gaaaaaaaaa aaaaaaaaaa aaaaaaaaaa
 2160
 aaaaaaaaaa aaaaa
 2175

<210> 5976
 <211> 564
 <212> PRT
 <213> Homo sapiens

<400> 5976
 Met Ser Tyr Pro Ala Asp Asp Tyr Glu Ser Glu Ala Ala Tyr Asp Pro
 1 5 10 15
 Tyr Ala Tyr Pro Ser Asp Tyr Asp Met His Thr Gly Asp Pro Lys Gln
 20 25 30
 Asp Leu Ala Tyr Glu Arg Gln Tyr Glu Gln Gln Thr Tyr Gln Val Ile
 35 40 45
 Pro Glu Val Ile Lys Asn Phe Ile Gln Tyr Phe His Lys Thr Val Ser
 50 55 60
 Asp Leu Ile Asp Gln Lys Val Tyr Glu Leu Gln Ala Ser Arg Val Ser
 65 70 75 80
 Ser Asp Val Ile Asp Gln Lys Val Tyr Glu Ile Gln Asp Ile Tyr Glu
 85 90 95
 Asn Ser Trp Thr Lys Leu Thr Glu Arg Phe Phe Lys Asn Thr Pro Trp
 100 105 110
 Pro Glu Ala Glu Ala Ile Ala Pro Gln Val Gly Asn Asp Ala Val Phe
 115 120 125
 Leu Ile Leu Tyr Lys Glu Leu Tyr Tyr Arg His Ile Tyr Ala Lys Val
 130 135 140
 Ser Gly Gly Pro Ser Leu Glu Gln Arg Phe Glu Ser Tyr Tyr Asn Tyr
 145 150 155 160
 Cys Asn Leu Phe Asn Tyr Ile Leu Asn Ala Asp Gly Pro Ala Pro Leu
 165 170 175
 Glu Leu Pro Asn Gln Trp Leu Trp Asp Ile Ile Asp Glu Phe Ile Tyr
 180 185 190
 Gln Phe Gln Ser Phe Ser Gln Tyr Arg Cys Lys Thr Ala Lys Lys Ser
 195 200 205
 Glu Glu Glu Ile Asp Phe Leu Arg Ser Asn Pro Lys Ile Trp Asn Val
 210 215 220
 His Ser Val Leu Asn Val Leu His Ser Leu Val Asp Lys Ser Asn Ile
 225 230 235 240
 Asn Arg Gln Leu Glu Val Tyr Thr Ser Gly Gly Asp Pro Glu Ser Val
 245 250 255
 Ala Gly Glu Tyr Gly Arg His Ser Leu Tyr Lys Met Leu Gly Tyr Phe
 260 265 270
 Ser Leu Val Gly Leu Leu Arg Leu His Ser Leu Leu Gly Asp Tyr Tyr
 275 280 285
 Gln Ala Ile Lys Val Leu Glu Asn Ile Glu Leu Asn Lys Lys Ser Met
 290 295 300
 Tyr Ser Arg Val Pro Glu Cys Gln Val Thr Thr Tyr Tyr Tyr Val Gly
 305 310 315 320
 Phe Ala Tyr Leu Met Met Arg Arg Tyr Gln Asp Ala Ile Arg Val Phe

```

          325                      330                      335
Ala Asn Ile Leu Leu Tyr Ile Gln Arg Thr Lys Ser Met Phe Gln Arg
          340                      345                      350
Thr Thr Tyr Lys Tyr Glu Met Ile Asn Lys Gln Asn Glu Gln Met His
          355                      360                      365
Ala Leu Leu Ala Ile Ala Leu Thr Met Tyr Pro Met Arg Ile Asp Glu
          370                      375                      380
Ser Ile His Leu Gln Leu Arg Glu Lys Tyr Gly Asp Lys Met Leu Arg
          385                      390                      395                      400
Met Gln Lys Gly Asp Pro Gln Val Tyr Glu Glu Leu Phe Ser Tyr Ser
          405                      410                      415
Cys Pro Lys Phe Leu Ser Pro Val Val Pro Asn Tyr Asp Asn Val His
          420                      425                      430
Pro Asn Tyr His Lys Glu Pro Phe Leu Gln Gln Leu Lys Val Phe Ser
          435                      440                      445
Asp Glu Val Gln Gln Gln Ala Gln Leu Ser Thr Ile Arg Ser Phe Leu
          450                      455                      460
Lys Leu Tyr Thr Thr Met Pro Val Ala Lys Leu Ala Gly Phe Leu Asp
          465                      470                      475                      480
Leu Thr Glu Gln Glu Phe Arg Ile Gln Leu Leu Val Phe Lys His Lys
          485                      490                      495
Met Lys Asn Leu Val Trp Thr Ser Gly Ile Ser Ala Leu Asp Gly Glu
          500                      505                      510
Phe Gln Ser Ala Ser Glu Val Asp Phe Tyr Ile Asp Lys Asp Met Ile
          515                      520                      525
His Ile Ala Asp Thr Lys Val Ala Arg Arg Tyr Gly Asp Phe Phe Ile
          530                      535                      540
Arg Gln Ile His Lys Phe Glu Glu Leu Asn Arg Thr Leu Lys Lys Met
          545                      550                      555                      560
Gly Gln Arg Pro

```

<210> 5977

<211> 2320

<212> DNA

<213> Homo sapiens

<400> 5977

```

naactttctt tagattgtc ttgtctttt ccaacttctt ttattttctat tatacttata
60
attttgcttt ttgccctatc ttccattaga aacttttgcg aaatgtctgt taaatgctac
120
ccagtgact ttgggcttgg tcatgctact tgctttgggc aatgaaatgt gagtagacat
180
caagtatacc accatcacac agaaatttta ttttttattt tttttttat agagacaggg
240
ttcactaca ttgcttagat tgggtctcaa ctcttgggct caagcaatct tctcttttt
300
ggcctcccaa agtggtggga ttgcaggtgt gcgccactac gccacgcttg aaaaattttt
360
taatgcattt ggtaatccac aggagatcac atttagtata tgaccaagtt aattaagaag
420
tcaaaaaaca cggttaattt aagcagaata aggctggggt cggtggetca tgctgtgat
480

```

cccagcactt tgggaggcag aggtgggcag atcattnagg ccaggagtcc gagaccagcc
540
tggacaacat ggcganaagt ctttactaaa aatacaaaaa tcagctgggc gtggtggtac
600
acacccgtga tcccagctac tcaggaggct taggcacatg atncgcttga acctgggaga
660
tggaaagtgc agtaagctag atcctgccac tgtactccag cctgggtgac agatcaagac
720
tctaactaaa aaacccccca aaaaaaaaat agttacttgg aaaacttccg acatttattt
780
acttctggac aaacaaatga gtgggaagaa tcaagtatac acctcttaat tgtatttttt
840
tttttttttg agacagagtc ttgctctgtc gcccaggctg gagtacagtg gacgatctca
900
gctcactgca acctttgcct cccgggttca ggtgattctc ctgcctcagc ctcccagta
960
gcccggatta taggcattga gaaccacacc tggctagtct ttgtattttt agtagagatg
1020
aagtttcacc atgttggcct ggctgggtct aaactcctga cctcaagtga tctgcccgcc
1080
tgggtcctta aagtgttggg attacaggcy tgagccacgc tgccctggca atgttagttt
1140
ttatccttaa aattgcctga gttcttagaa cacagaaaaa acaaatttga atgcattttt
1200
aacagcttaa taatttatat gtcccattat gatttttagc gaattgttta aagcaagca
1260
taattcactg caaagataaa cctgaaaaag caaacaact tacaatggt atgttatgac
1320
ctagacaaaa ctgattatca actagtaata ctcataatta gcacatgcaa cagattgaga
1380
aattaaatcc tgtgctatat actcttaagt attttgtcag atatatcttt aaatgttcta
1440
tcaattgcat tctttccac acatatttta aacaagaaaa caattgtctt tctccagat
1500
tctcatgttt atcagtgcga aacgttgcaa tctcagtaaa aatggtttat tacaatgtta
1560
ttttagaag gcttagtctt caaactgttg aaaatgtact taaaagatgt ccaaatcatg
1620
agaatgatca acttcaatgg ctctctctgc ctcaacttg gcttctgcat gtctctctcg
1680
tgactcatca agagaggcca aggcctcatt cgtgtcactt gcaaaagtct ctctgtatgt
1740
atcatcatct tcttgaaaat ttagactttt aatagcttgt ttcattcttt tccccaacac
1800
ttgtgttctc ctcttcttag cagctttttt attttcatat tctttttggt ttcaatgta
1860
gaaaatgtcc taaatttggt cctcgtgat actaggagtgt tttttcaaga gattcagaaa
1920
aaectcacct ggtgttcttc ttgcactacc attcattata aagagaccac cattttgttc
1980
aacttcagcg gtttccatca gaagtccaat tgectttttg ttaccaataa tctcactac
2040
tcgggctatc aggtctttct ttggttcctg taacctgaat gaaatttcat cagccacttt
2100

ctcttgagaa tcttccgctg tgatctcgta tcgaccttta tagttcatct ctggtctggt
 2160
 ccctagcctg tctttgacag gtcgtttcct tttgagatga ccttgcccat tttcctcttc
 2220
 ctttgatccc atttttttgc caccatgcat atattcatct agttccttgt ctagatcctt
 2280
 tgtagctct tgagattcct tcctaagttt cttggcaagc
 2320

<210> 5978
 <211> 77
 <212> PRT
 <213> Homo sapiens

<400> 5978
 Met Thr Lys Leu Ile Lys Lys Ser Lys Asn Thr Leu Asn Leu Ser Arg
 1 5 10 15
 Ile Arg Leu Gly Ser Val Ala His Ala Cys Asp Pro Ser Thr Leu Gly
 20 25 30
 Gly Arg Gly Gly Gln Ile Ile Xaa Ala Arg Ser Ser Arg Pro Ala Trp
 35 40 45
 Thr Thr Trp Arg Xaa Val Phe Thr Lys Asn Thr Lys Ile Ser Trp Ala
 50 55 60
 Trp Trp Tyr Thr Pro Val Ile Pro Ala Thr Gln Glu Ala
 65 70 75

<210> 5979
 <211> 1095
 <212> DNA
 <213> Homo sapiens

<400> 5979
 nntttctttt ttgagacgac gtcttgctct gtcacccagg ctagagtga atggcacgat
 60
 ctccggtcac ttagccttg acctcctggg ctcaagcgat ctccgctca gcctcccgag
 120
 tagctgcgac cacaggcctg tgcagcactc ctggcttgct gccattgta tagatgagga
 180
 aattgaggcc taaggcaggg tcaattgcct ggccccctcc ccttcacccg tcagagtcca
 240
 gacaggaggagg ggacgtcccc tgacccccgc tgctctgtgc tttcagggca agaagactat
 300
 gaccggctgc ggccccctgct ctaccagaac acccacctcg tgctcatctg ctatgacgtc
 360
 atgaatccca ccagctacga caacgtcctc atcaagtggg tccctgaggt cacgcatttc
 420
 tgcgcgggga tccccatggg gctcatcggc tgcaagacag acctgaggaa ggacaaggag
 480
 cagctgcgga agctccgggc cgccacgctg gagcccatca cctacatgca gggcctgagc
 540
 gcctgcgaac agatccgagc tgctctctac ctggaatgtt ccgccaagtt tcgggagaat
 600
 gtggaggacg tcttccggga ggccgccaaag gtggctctca gcgctctgaa gaaggcgcaa
 660

cggcagaaga agcgccggct ctgcctgctg ctctgaccca gggcagacag acctcacgac
 720
 agcactgaca gggcccgggg gccaggtgc cgattgcacc agggaggctg ccccatcccg
 780
 accctccagc tcattggtgtc tggggcctgc ggctagactc ttggaacatt ctggaaactct
 840
 ctcccttctt ggctggggct ctgaccacaa actccctccc agggctgcccc tgggacatgg
 900
 tgggtgatgtg ggtgcaggag ccagtgtctg ttgttgggac tcgcaagtgc cctcatcaca
 960
 gccaccccca ccacgagtgt ctccccagtg cagactcaag ttatgcttga aatgaaaaag
 1020
 tctatctggt agtggggtaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa
 1080
 aaaaaaaaaa aaaaa
 1095

<210> 5980

<211> 169

<212> PRT

<213> Homo sapiens

<400> 5980

Gly	Leu	Arg	Gln	Gly	His	Leu	Pro	Gly	Pro	Phe	Pro	Phe	Thr	Arg	Gln
1				5					10				15		
Ser	Pro	Asp	Arg	Glu	Gly	Thr	Ser	Pro	Asp	Pro	Arg	Cys	Ser	Val	Leu
			20					25				30			
Ser	Gly	Gln	Glu	Asp	Tyr	Asp	Arg	Leu	Arg	Pro	Leu	Ser	Tyr	Gln	Asn
		35				40					45				
Thr	His	Leu	Val	Leu	Ile	Cys	Tyr	Asp	Val	Met	Asn	Pro	Thr	Ser	Tyr
		50				55				60					
Asp	Asn	Val	Leu	Ile	Lys	Trp	Phe	Pro	Glu	Val	Thr	His	Phe	Cys	Arg
65				70					75					80	
Gly	Ile	Pro	Met	Val	Leu	Ile	Gly	Cys	Lys	Thr	Asp	Leu	Arg	Lys	Asp
			85					90						95	
Lys	Glu	Gln	Leu	Arg	Lys	Leu	Arg	Ala	Ala	Gln	Leu	Glu	Pro	Ile	Thr
			100					105					110		
Tyr	Met	Gln	Gly	Leu	Ser	Ala	Cys	Glu	Gln	Ile	Arg	Ala	Ala	Leu	Tyr
		115				120					125				
Leu	Glu	Cys	Ser	Ala	Lys	Phe	Arg	Glu	Asn	Val	Glu	Asp	Val	Phe	Arg
		130				135					140				
Glu	Ala	Ala	Lys	Val	Ala	Leu	Ser	Ala	Leu	Lys	Lys	Ala	Gln	Arg	Gln
145				150						155					160
Lys	Lys	Arg	Arg	Leu	Cys	Leu	Leu	Leu							
															165

<210> 5981

<211> 677

<212> DNA

<213> Homo sapiens

<400> 5981

cgcttcccc agccctcgcg ccgccccga acgagaggtc cggagcccc gcgcggcgcg
 60

gtttctggggt gtagacgctg ctggccagcc ctccccagcc gaggttctcg gcaccgcctt
 120
 gagagcttca gctgcccag ggtgtgcaggt tttgctttag agggtcggcg ggcggagctt
 180
 cggggaagag gagctctggg agagtcattc cggtccagtc gagtaccgtc gtgcctcttg
 240
 ggaatccttg gccgccaga cagaagggaa gtaggcgcgc gagaccgtt ctgcattttg
 300
 attcatctcg ggcctgttaa gggtcatact ttgtgaaaaa aacctgtaaa atcaatttaa
 360
 cgttcagtc agcgtgtaaa gacagctcta agaattttaa agacgcctga gtgacaacat
 420
 ttaaatgctt gggtcctgt agcagcggtt taacacgtct gagtgcagag ggtgagagaat
 480
 cgagcctgat tgcggttcac gccctgtaac ctttaagaag ggtaaagaaa ggcaccctaa
 540
 aaaacgcaag gggacactta ccctaggggt ggacgaacag ctagcttttt ggaatttggg
 600
 ttggctctca tttccaagtg cgaaatttgc ctgcaaaaact ttttatttgc agtcatagat
 660
 caacgataaa cagaatt
 677

<210> 5982

<211> 98

<212> PRT

<213> Homo sapiens

<400> 5982

Met	Gln	Asn	Gly	Ser	Pro	Ala	Pro	Thr	Ser	Leu	Leu	Ser	Gly	Arg	Pro
1			5					10					15		
Arg	Ile	Pro	Lys	Ser	Asp	Asp	Gly	Thr	Arg	Thr	Gly	Arg	Asn	Asp	Ser
			20					25					30		
Pro	Arg	Ala	Pro	Leu	Pro	Arg	Ser	Ala	Arg	Arg	Pro	Ser	Lys	Ala	
			35				40				45				
Asn	Leu	His	Thr	Leu	Gly	Gln	Leu	Lys	Leu	Ser	Arg	Arg	Cys	Arg	Glu
			50			55				60					
Pro	Arg	Leu	Gly	Arg	Ala	Gly	Gln	Gln	Arg	Leu	His	Pro	Arg	Thr	Arg
			65			70			75				80		
Pro	Arg	Arg	Gly	Ser	Gly	Pro	Leu	Val	Arg	Ala	Gly	Arg	Arg	Gly	Trp
			85					90					95		

Gly Lys

<210> 5983

<211> 790

<212> DNA

<213> Homo sapiens

<400> 5983

gctcgacata tacagaatat ttcttcccga gaaagtcttc caggaataaa gagacgcact
 60
 tatagtcaag aggtaagaag ttaacttaaa aagggtgaat tggtagtttt ttccattata
 120

cattgttttc cttaaattac tggtaaattt tgaaataaac agtcccaaga tgtgattatt
 180
 tgtgtaattt ttttttttaa tttgtaaaca gggatatgac agatcttcaa ccatgttaac
 240
 attggggcct ttagaaaatt ctaatttaac tgaactgggt ctgcaagaaa taaagactat
 300
 tgggtatagc agccctagga gtaggactga agtcaacagg cagtgtcctg gagaaaagga
 360
 acctgtgtca gaccttcagc taggactcga tgcagttgag ccaactgccc tacataaaac
 420
 cctggaaaac cctgcacatg acagggtcta gcccaacagc caactggact cgactcactc
 480
 tggacggggc acaatgtatt ctctctgggt aaagagccct gacagaacag gagttaactt
 540
 ctcaagtgaac tccaacttga gggacctgac accctcgcat cagttggagg ttggaggagg
 600
 cttccgaata agtgagtcaa agtgcctgat gcaggatgat actagaggca tgtttatgga
 660
 aacaactgtg ttttgtactt ccgaagatgg gcttgatatc ggtttcggag ggactgttaa
 720
 tgacaatttg atgcacggga attgcacacc ccagaatcca ccacaaaaga aaaaggtttc
 780
 tctattagaa
 790

<210> 5984

<211> 186

<212> PRT

<213> Homo sapiens

<400> 5984

Met Leu Thr Leu Gly Pro Phe Arg Asn Ser Asn Leu Thr Glu Leu Gly
 1 5 10 15
 Leu Gln Glu Ile Lys Thr Ile Gly Tyr Thr Ser Pro Arg Ser Arg Thr
 20 25 30
 Glu Val Asn Arg Gln Cys Pro Gly Glu Lys Glu Pro Val Ser Asp Leu
 35 40 45
 Gln Leu Gly Leu Asp Ala Val Glu Pro Thr Ala Leu His Lys Thr Leu
 50 55 60
 Glu Thr Pro Ala His Asp Arg Ala Glu Pro Asn Ser Gln Leu Asp Ser
 65 70 75 80
 Thr His Ser Gly Arg Gly Thr Met Tyr Ser Ser Trp Val Lys Ser Pro
 85 90 95
 Asp Arg Thr Gly Val Asn Phe Ser Val Asn Ser Asn Leu Arg Asp Leu
 100 105 110
 Thr Pro Ser His Gln Leu Glu Val Gly Gly Gly Phe Arg Ile Ser Glu
 115 120 125
 Ser Lys Cys Leu Met Gln Asp Asp Thr Arg Gly Met Phe Met Glu Thr
 130 135 140
 Thr Val Phe Cys Thr Ser Glu Asp Gly Leu Val Ser Gly Phe Gly Arg
 145 150 155 160
 Thr Val Asn Asp Asn Leu Ile Asp Gly Asn Cys Thr Pro Gln Asn Pro
 165 170 175
 Pro Gln Lys Lys Lys Val Ser Leu Leu Glu

180

185

<210> 5985

<211> 737

<212> DNA

<213> Homo sapiens

<400> 5985

tgagcttggt ctttccgggc ctgccttccc ccagccctcg cgcgccggcc gaacgagagg
 60
 ttccggagcc ccggcgcggg cgggttctgg ggtgtagacg ctgctggcca gccgccccca
 120
 gccgagggtc tcggcaccgc cttgagagct tcagctgccc caggggtgtgc agattagaat
 180
 cccaagaaaa tcaaatggca tcgggggatt tetgtctacc tggagaaggg atggaaatac
 240
 ttcaacaagt gtgcagcaaa caactctctc cttgtaacct gagtaagag gacctgttac
 300
 agaaccata cttcagcaag cttctctctga atctctcaca gcatgtggat gagagtggct
 360
 taagcctcac cctagcaaa ggcaggctc aggcattgaa ggaagtctga ctgcataaga
 420
 caacatggtt gaggtctgag attttacaca gagtcattca agagtgtctt gtggactact
 480
 atgtgaagat acaagacaca aatgtaactt ctgaggacaa aaagtttcat gagacccttg
 540
 aacagcggct gcttgtaact gaactgatgc ggctcttagg tcctagccag gagagggaga
 600
 tacctccact gctggggctg gagaagcggt accttctgga actcatgcca ctctcagagg
 660
 ttggcgggga gatattggaa ccaataaat gaaatgggtt aatttctccc atatctttaa
 720
 aaaaaaaaa aaaaaaa
 737

<210> 5986

<211> 165

<212> PRT

<213> Homo sapiens

<400> 5986

Met Ala Ser Gly Asp Phe Cys Ser Pro Gly Glu Gly Met Glu Ile Leu
 1 5 10 15
 Gln Gln Val Cys Ser Lys Gln Leu Pro Pro Cys Asn Leu Ser Lys Glu
 20 25 30
 Asp Leu Leu Gln Asn Pro Tyr Phe Ser Lys Leu Leu Leu Asn Leu Ser
 35 40 45
 Gln His Val Asp Glu Ser Gly Leu Ser Leu Thr Leu Ala Lys Glu Gln
 50 55 60
 Ala Gln Ala Trp Lys Glu Val Arg Leu His Lys Thr Thr Trp Leu Arg
 65 70 75 80
 Ser Glu Ile Leu His Arg Val Ile Gln Glu Leu Leu Val Asp Tyr Tyr
 85 90 95
 Val Lys Ile Gln Asp Thr Asn Val Thr Ser Glu Asp Lys Lys Phe His

	100		105		110
Glu Thr Leu Glu Gln Arg Leu Leu Val Thr Glu Leu Met Arg Leu Leu					
115		120		125	
Gly Pro Ser Gln Glu Arg Glu Ile Pro Pro Leu Leu Gly Leu Glu Lys					
130	135		140		
Ala Asp Leu Leu Glu Leu Met Pro Leu Ser Glu Val Gly Gly Glu Ile					
145	150		155		160
Leu Glu Pro Asn Lys					
	165				

<210> 5987

<211> 1444

<212> DNA

<213> Homo sapiens

<400> 5987

```

nnctggattg ggaatgaagg ggcgtgaatct cagtcaggag ctgagctccc cagccagagg
60
ggcatgtttt ttctccttg ttgtaatctc aaaggtcaca gcactctgctg aggaggcgac
120
caccgcgtgg agctttacaa ggtgctgagt tcctctgggt accatgtggt cacccttgac
180
tacagaggtt ggggtgactc agtgggaacg ccactctgagc ggggcatgac ctatgacgca
240
ctccacgttt ttgactggat caaagcaaga agtggtgaca accccgtgta catctggggc
300
cactctctcg gcactggcgt ggcgacaatc tgggtgcggc cctctgtgag cgagagcct
360
ccagatgccc ttatatggga atctccatcc actaatatcc gcgaagaagc taagagccat
420
ccattttcag tgatatatcg atacttccct gggtttgact gggtcttctc tgatcttatt
480
acaagtagtg gaattaaatt tgcaaatgat gaaaacgtga agcacatctc ctgtccctcg
540
ctcatctctg acgctgagga cgacccgggt gtgcctctcc agcttggcag aaagctctat
600
agcatgcccg caccagctcg aagcttccga gatttcaaa ttcagtttgt gccctttcat
660
tcagaccttg gctacaggca caaatacatc tacaagagcc ctgagctgcc acggatactg
720
aggggaattc tgggggaagtc ggagcctgag caccagcact gagcctggcc gtgggaagga
780
agcatgaaga cctctgccct cctcccggtt tctccagtc agcagcccggt tatctgaag
840
cccggggggg ccggcacctg caatgctcag gagccagct cgacacctgga gagcacctca
900
gateccaggt ggggaggccc ctgcaggcct gcagtgcccc gaggcctgag catggctgtg
960
tggaagacgt ggggtggcagg catgtggctc tccttgccgc ccctcaacct gagatcttgt
1020
tgggagactt aatggcagca ggcagccatc actgctctgt tgatgctgca ctgagctgga
1080
cagggggagt ccgggcaggg gactcttggg gctcgggacc atgctgagct ttttggcacc
1140

```

accacacagag aacgtgggggt ccagggttctt tctgcacctt cccagcacat gcagaatgac
 1200
 tccagtggtt ccacgtgcc ctcctgcctt gtgtacctgc ttgcctttct cagctgcccc
 1260
 acctcccttg ggctggccca ctcaccacaca gtggaagtgc ccgggatctg cacttccctc
 1320
 cctttcacct acctgtacac ctaacctggc cttagactga gctttatatta agaataaaa
 1380
 cgtgggtggt gtctttttgt ctcaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa
 1440
 aaaa
 1444

<210> 5988

<211> 216

<212> PRT

<213> Homo sapiens

<400> 5988

Gly	Gly	Asp	His	Arg	Val	Glu	Leu	Tyr	Lys	Val	Leu	Ser	Ser	Leu	Gly
1				5					10					15	
Tyr	His	Val	Val	Thr	Phe	Asp	Tyr	Arg	Gly	Trp	Gly	Asp	Ser	Val	Gly
			20					25					30		
Thr	Pro	Ser	Glu	Arg	Gly	Met	Thr	Tyr	Asp	Ala	Leu	His	Val	Phe	Asp
			35				40					45			
Trp	Ile	Lys	Ala	Arg	Ser	Gly	Asp	Asn	Pro	Val	Tyr	Ile	Trp	Gly	His
	50					55				60					
Ser	Leu	Gly	Thr	Gly	Val	Ala	Thr	Ile	Trp	Cys	Gly	Ala	Ser	Val	Ser
	65				70				75				80		
Glu	Thr	Pro	Pro	Asp	Ala	Leu	Ile	Leu	Glu	Ser	Pro	Phe	Thr	Asn	Ile
			85					90					95		
Arg	Glu	Glu	Ala	Lys	Ser	His	Pro	Phe	Ser	Val	Ile	Tyr	Arg	Tyr	Phe
			100				105						110		
Pro	Gly	Phe	Asp	Trp	Phe	Phe	Leu	Asp	Pro	Ile	Thr	Ser	Ser	Gly	Ile
	115						120					125			
Lys	Phe	Ala	Asn	Asp	Glu	Asn	Val	Lys	His	Ile	Ser	Cys	Pro	Leu	Leu
	130					135					140				
Ile	Leu	His	Ala	Glu	Asp	Asp	Pro	Val	Val	Pro	Phe	Gln	Leu	Gly	Arg
	145				150					155				160	
Lys	Leu	Tyr	Ser	Ile	Ala	Ala	Pro	Ala	Arg	Ser	Phe	Arg	Asp	Phe	Lys
			165					170					175		
Val	Gln	Phe	Val	Pro	Phe	His	Ser	Asp	Leu	Gly	Tyr	Arg	His	Lys	Tyr
			180					185					190		
Ile	Tyr	Lys	Ser	Pro	Glu	Leu	Pro	Arg	Ile	Leu	Arg	Glu	Phe	Leu	Gly
		195					200					205			
Lys	Ser	Glu	Pro	Glu	His	Gln	His								
	210					215									

<210> 5989

<211> 1583

<212> DNA

<213> Homo sapiens

<400> 5989

gccccctgat cagttctttg ggggtgctttt taaagtttcc caggatcccc atgttgctcat
60
acactccgaa catggccctt ttctcgttcc aacgatcaac cactttgggg ggcgggagag
120
tgagccttat accgatcaat ctaggcacac ctctcttctc gggggtgact gaatgccag
180
ccagggcagc gacgtctctg gccagcagaa atacggcctc ctccccccg actgggcaaa
240
ggggggacagc aagtgtccca tcaccaccc atctcctgct tctactgtga gtgcgaggag
300
aagagactgt gcgtcaacac tcatgtatgg accaaaagca agttcatggg catgtccgtg
360
ggggtctcta tgatagggga aggtgtgttg aggcctcctg aacacgggga ggagtaagta
420
ttcaccctgc ctagtgccta cgcccgggtcc attctcacca tcccgtgggt ggagctcgga
480
ggaaaagtca gcatacaactg tgccaagact gggtaactag cgacagtga attccacag
540
aagcctttct atggagggaa agtccacagg gttaccgcag aagtgaagca caacccaacc
600
aacaccattg ttgttaaagc ccatggggaa tggaatggta ctttagagtt cacctacaac
660
aatggagaaa ccaagtcac cgacacaacc aactgccag tgtatcccaa gaagatcaga
720
cctcttgaga agcagggacc catggagctc aggaacctct ggccggaggt gacccgatac
780
ctgcggtcgg gggacattga cgcagccacc gagcagaagc ggcacctgga ggagaagcaa
840
cgggtggagc aacggaagcg cgagaacctc cgcacacatc ggaagcccaa atattttatc
900
caggagggcg atggctgggt ataactcaat cccctctgga aagcacactg atggggtgga
960
ggtgcagagc ttccagtat agcctgttt ttgtaggaat attaaagtag tagagtatca
1020
gggtttttgt ggcatctact gagacctgtg attagcatcc aagaaatgat gagagagaga
1080
gaaattatat actatgaaaa gtgcaccccc aactctgct agaggaaatga atttattcaa
1140
gagccattcg gggcacgtgt gtgtacacac cgtatacgtt cacacacatg cactatgtaa
1200
acatctgagt atgattacac atttaaatat tgcactcacc aagggtaaag tgggtaatac
1260
taagctcctt tttatcaatg aagtttgaag tttttotatt tttcactttg ccaaaatagt
1320
tttactca caaagatatt ctacttagt caactcctgt caaaatgaag gtgaactggc
1380
atggccgat cactgtccat aaggagagaa gtggctcatt cctggtagaa gtatgggtgg
1440
ttatcatttc aaaattattg tgattctcac ctccctcccc acctcagtgt ttgtctgtc
1500
cgcgcccaag aaagataagc aagtatttcc tgctggatgg gggtggcag gaagctgta
1560
aagatttatg ccagagcct tgc
1583

<210> 5990
 <211> 260
 <212> PRT
 <213> Homo sapiens

<400> 5990
 Leu Asn Ala Gln Pro Gly Thr Arg Arg Leu Trp Pro Ala Glu Ile Arg
 1 5 10 15
 Pro Pro Pro Arg Arg Leu Gly Lys Gly Gly Gln Gln Val Ser His His
 20 25 30
 Pro Pro Ile Ser Cys Phe Tyr Cys Glu Cys Glu Glu Lys Arg Leu Cys
 35 40 45
 Val Asn Thr His Val Trp Thr Lys Ser Lys Phe Met Gly Met Ser Val
 50 55 60
 Gly Val Ser Met Ile Gly Glu Gly Val Leu Arg Leu Leu Glu His Gly
 65 70 75 80
 Glu Glu Tyr Val Phe Thr Leu Pro Ser Ala Tyr Ala Arg Ser Ile Leu
 85 90 95
 Thr Ile Pro Trp Val Glu Leu Gly Gly Lys Val Ser Ile Asn Cys Ala
 100 105 110
 Lys Thr Gly Tyr Ser Ala Thr Val Ile Phe His Thr Lys Pro Phe Tyr
 115 120 125
 Gly Gly Lys Val His Arg Val Thr Ala Glu Val Lys His Asn Pro Thr
 130 135 140
 Asn Thr Ile Val Cys Lys Ala His Gly Glu Trp Asn Gly Thr Leu Glu
 145 150 155 160
 Phe Thr Tyr Asn Asn Gly Glu Thr Lys Val Ile Asp Thr Thr Thr Leu
 165 170 175
 Pro Val Tyr Pro Lys Lys Ile Arg Pro Leu Glu Lys Gln Gly Pro Met
 180 185 190
 Glu Ser Arg Asn Leu Trp Arg Glu Val Thr Arg Tyr Leu Arg Leu Gly
 195 200 205
 Asp Ile Asp Ala Ala Thr Glu Gln Lys Arg His Leu Glu Glu Lys Gln
 210 215 220
 Arg Val Glu Glu Arg Lys Arg Glu Asn Leu Arg Thr Pro Trp Lys Pro
 225 230 235 240
 Lys Tyr Phe Ile Gln Glu Gly Asp Gly Trp Val Tyr Phe Asn Pro Leu
 245 250 255
 Trp Lys Ala His
 260

<210> 5991
 <211> 2440
 <212> DNA
 <213> Homo sapiens

<400> 5991
 gccctgcacg aaaatcccgataataattatt gccacgcccc gacgggttggt gcatgtggct
 60
 gtggaaatga gacctgaagct gcagagtgtg gaatacgtgg tggtcgatga agctgaccgg
 120
 ctttttgaaa tgggttttcg agagcagctg caggagatca tcgcccgccct ccccgggggc
 180

caccagacgg tgcgtgttctc cgccacgctg cccaaactgc tgggtggaatt tgcccgggct
240
ggccttcacgg agcccgctgct catccggctt gacgtggata ccaagctcaa cgagcagctg
300
aagacctcct tcttctctcgt gcgggaggac accaaggctg ccgtgctgct ccacctgctg
360
cacaacgttg tgcggcccca ggaccagacc gtgggtgttg tggccacgaa gcaccacgcc
420
gagtagctca ctgagctgct gacgacccag ncggtgagct gcgcccacat ctatagtgcc
480
ctagaccoga cagcccgcaa gatcaatctc gccaaattca cgcttggaat gtgctccact
540
ctcatttgta ctgacctggc cgcccaggc ctggacatcc cgctgctgga caatgtcatc
600
aactacagct tcccgcgcaa gggcaaaact ttctctgacc gcgtggggcg tgtggctcgg
660
gttgggccaa gtggcacagc ctactccttg gtggcccttg atgaaatccc ctacctgctg
720
gatctgcacc tgttctctggg ccgtctcttc nacctctgcc cgacctctca aggagccctc
780
aggtgtggcc ggtgtggatg gcatgctggg tcgggtgccca cagagtgttg tggacagagg
840
ggacagtggg ctgcagagca ccctggaggc atcgctggag ctacggggcc tggcccgctg
900
tgctgataac gccacgagc agtatgtgcy ctacgcccgc gcgcctctgc ctgagtcact
960
caagaggggc aaggagatgg acctgtggg gctgggctcg cccccctct tcagctcgcg
1020
ttttgaggag gaggagctgc agcggctgag gctggtggag agcataaaga actaccgctc
1080
ccgggcgact atctttgaga tcaacgcctc cagccgagac ctgtgcagcc aggtgatgcy
1140
cgccaagcgg cagaaggacc gcaagccatc gcccgcttcc agcagggaca gcagggcgcg
1200
cagagcagc agggaggggc agtggggcca gccccgagcc gccacgact gcagagagaag
1260
cagctgaga agggaggagg ggaggaggcg ggagagagtg tggaggacat tttctcagag
1320
gtcgtggggc ggaagcgga gcggtcagga cccaacaggg gagccaagag gcggaggagg
1380
gagggccggc agcgggacca ggaattctac atccccatcc ggcccaagga ctttgacagc
1440
gagcggggcc tgagcatcag cggggaaggg ggagcctttg agcagcaggc agctggcgct
1500
gtcctggact tgatggggga tgaagccag aacctgacga ggggcccggc cgagctcaag
1560
tgggaccgta agaagaagcg gtttgtggga cagtcaggac aggaagacaa gaagaagatt
1620
aagacagaga gcggccgcta catcagcagc tcctacaagc gagacctcta tcagaagtgg
1680
aaacgaagc agaaaaattga tgatcgtgac tcggacgaag aaggggcatc tgaccggcga
1740
ggcccagagc gaagagggtg gaagcagagc cgtggccaag caggtgcacg ccggcccccac
1800

gccccaggca cccctgcagg ccgagtcgcg ccggaactca agaccaagca gcagatcctg
 1860
 aagcagcggc gccyggccca gaagctgcac ttcttcgagc gtggtggcct caagcagctc
 1920
 tctgccccga accgcgcgcg cgtccaggag ctgcagcagg gcgccttcgg ccggggtgcc
 1980
 cgctccaaga agggcaagat gcggaagagg atgtgaggac caggaccag cccctgtggc
 2040
 ccttgattgg ccttaggggtg ggcacacgca gacgttcccg tgcaccactg tgtgcctggc
 2100
 cctgtgctgg gcaactggggg cactccctgc aggagccatc atctgtgaaa agggagcactg
 2160
 tatggccaca gaagggcagc agctgcgtca gcctaagaca gagacatttg aacagggcct
 2220
 tgaagggtgt gcaggagtgc gccagcaaag ccaggcaggc caagacttga gttggcaact
 2280
 cagctgctgc tgcttccatg tgttctgggt tcagaggtca tggctgcacc ggtcagagcc
 2340
 ctgagtgctc cagggttttg caatggaatt ttaaatgtaa taaatcttta ttgagcactg
 2400
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa
 2440

<210> 5992

<211> 301

<212> PRT

<213> Homo sapiens

<400> 5992

Ala	Leu	His	Glu	Asn	Pro	Asp	Ile	Ile	Ile	Ala	Thr	Pro	Gly	Arg	Leu
1			5					10					15		
Val	His	Val	Ala	Val	Glu	Met	Ser	Leu	Lys	Leu	Gln	Ser	Val	Glu	Tyr
			20				25					30			
Val	Val	Phe	Asp	Glu	Ala	Asp	Arg	Leu	Phe	Glu	Met	Gly	Phe	Ala	Glu
			35				40					45			
Gln	Leu	Gln	Glu	Ile	Ile	Ala	Arg	Leu	Pro	Gly	Gly	His	Gln	Thr	Val
			50				55				60				
Leu	Phe	Ser	Ala	Thr	Leu	Pro	Lys	Leu	Leu	Val	Glu	Phe	Ala	Arg	Ala
							70			75				80	
Gly	Leu	Thr	Glu	Pro	Val	Leu	Ile	Arg	Leu	Asp	Val	Asp	Thr	Lys	Leu
							85			90				95	
Asn	Glu	Gln	Leu	Lys	Thr	Ser	Phe	Phe	Leu	Val	Arg	Glu	Asp	Thr	Lys
														110	
Ala	Ala	Val	Leu	Leu	His	Leu	Leu	His	Asn	Val	Val	Arg	Pro	Gln	Asp
														125	
Gln	Thr	Val	Val	Phe	Val	Ala	Thr	Lys	His	His	Ala	Glu	Tyr	Leu	Thr
														140	
Glu	Leu	Leu	Thr	Thr	Gln	Xaa	Val	Ser	Cys	Ala	His	Ile	Tyr	Ser	Ala
														160	
Leu	Asp	Pro	Thr	Ala	Arg	Lys	Ile	Asn	Leu	Ala	Lys	Phe	Thr	Leu	Gly
														175	
Lys	Cys	Ser	Thr	Leu	Ile	Val	Thr	Asp	Leu	Ala	Ala	Arg	Gly	Leu	Asp
														190	
Ile	Pro	Leu	Leu	Asp	Asn	Val	Ile	Asn	Tyr	Ser	Phe	Pro	Ala	Lys	Gly

	195		200		205
Lys	Leu	Phe	Leu	His	Arg
	210		215		220
Gly	Thr	Ala	Tyr	Ser	Leu
	225		230		235
Asp	Leu	His	Leu	Phe	Leu
			245		250
Gln	Gly	Ala	Leu	Arg	Cys
			260		265
Ala	Thr	Glu	Cys	Gly	Gly
			275		280
Gly	Gly	Ile	Ala	Gly	Ala
	290		295		300

<210> 5993

<211> 7858

<212> DNA

<213> Homo sapiens

<400> 5993

```

nccatggagg gcaaagattt caactatgag tacgtacaga gagaagctct cagggttccc
60
ctgatatttc gagaaaaagga tggactggga attaatagtc ctgaccctga tttcacagtc
120
cgagacgtca aactcctagt ggggagccgg cggtctgtgg acgtgatgga tgtgaacacc
180
cagaaaaggca cggagatgag catgtcccag tttgtgcgtt actacgagac gcccgaggcc
240
cagcgggaca agctgtacaa cgtcatcagc cttagagtca gccacaccaa gctggagcac
300
ttgggtcaagc gtccgactgt ggtagacctg gtggactggg tggacaacat gtggcccccag
360
catctgaagg agaagcagac agaagccacg aacgccattg cagagatgaa gtaccgaaa
420
gtgaaaaagt actgtctgat gagcgtgaaa ggtgtgttca ccgacttcca catcgacttt
480
ggagggcactt ccgtttggta ccatgttttc cgggggtggga agattttttt gctgattcct
540
ccaacgctgc acaatttggc gctgtacgag gagtgggtgc tgtcaggcaa acagatgac
600
atctttcttg gagaccgtgt ggaacgatgc caaagaattg agctgaagca gggctacaca
660
tttttcatcc cttccgggtg gatccatgcc gtctacaccc ctgtagactc tttggtgttc
720
ggcggaaaca tctgcacag cttaaacgtg cccatgcagc tgcggatcta cgagatcgag
780
gacaggagcg ggggtgcagcc caaattccgt tacccttctt actatgagat gtgctggtat
840
gtcctggaga gatacgtgta ctgtgtgacc cagcgtcccc acctcactca ggaataccag
900
aggggagtcga tgcttattga tgccccgagg aagcccagca tagacggctt ctcttcggat
960
tcctggctgg agatggagga ggaggcctgt gatcagcagc ctcaggagga ggaggagaag
1020

```


gacgaggagg gcgaggggcag ggacaggggca cccaaaccgc ccaccgatgg ctccacttca
1080
cccaccagca cgcacctctga ggaccaggag gccctcggga agaagcccaa agcacctggc
1140
ctgcgattcc tcaaaaggac tttgtctaat gagtcggagg aaagtgtgaa gtccaccaca
1200
ttggccgtag actaccccaa gacccccacc ggctctcccg ccacggagggt ctctgccaaa
1260
tggaccatc tcactgagtt tgaactgaag ggcttgaag ctctgggtga gaaactggaa
1320
tcctcccgagg aagaacaagaa gtgtgtcccc gagggcatcg aggaccccca ggcactctcg
1380
gaggggtgtga agaactgtct gaaggagcac gcagatgatg accctagtct ggccatcact
1440
gggggtccctg ttggtgacttg gccaaagaag actccaaaga accgggctgt gggtcggccc
1500
aaggggaagc tggggcccgcc ctccgcgggt aagttggcgc ccaaccggac aacggcagga
1560
gctcggcgcc gccggacgcy atgcgcgaag tgcgaggcct gcctcggcga caggtgcgga
1620
gagtgccact tctgcaagga catgaagaag ttcgggggcc cggggcgcat gaagcagagc
1680
tgcatcatgc ggcagtgcat cgcgcagtg ctgccccaca cgcgcgtgtg ccttgttgtt
1740
ggcagggcgg ggaaggaaga cagggtgaa gagggagga gcaagtttaa cctcatgtct
1800
atggagtgct ccatctgcaa tgaatcacc caccctggat gccttaaggt gagtggccca
1860
gtggggacag gtgggtctga cgctctgggg caggtaggggt tgctggagat gctggtgaga
1920
tgggtgggatg cagggtctgc agtgaattcc tggaggacc ctgagtcctg gtgatcctgt
1980
gtgtcaagg ataaagcccg ggcaaggagg gcctggagta cctcagagac ccagtgtcat
2040
caaaggaaata aacacacccc caccctccag gatgtcagaa ccagagagggt ttccagagc
2100
ctcagcggat ggcaaacaca ggctgcttgt ttgtagctgg gccagaggga gggcctccag
2160
gtggctccag gcttctggga gaacaaggcc ccacaccaca ctctctccc cagcaccag
2220
tagagtcctc tcagagtcct tttctgcatg ccaggcgctg agctgggtggc tttaacctgg
2280
tcataccccc ccagtgagat gggcacacta acttttatgg ccgagggcac cagccacag
2340
agacggagtg tcttgcacag ggtccagag aagcaagggt gctcagcctc tgaacctgg
2400
cctggatcca cagctgccg tctctgccag cctctgcage tgtgtttct ttggtctgga
2460
aacgggtag atgtgacgtt ggggaggggt tgctgctgct tctggaagac gtggcgtcac
2520
agagccttgt gcccggtggc catcttctcc gcccgctcct ctctgagtc ctgggtgttc
2580
ccgacagatta aggagtcaga ggggtgtggtc aacgacgagc ttccaaactg ctgggagtg
2640

ccgaagtgtgta accacgcccgg caagaccggg aaacaaaagc gtggcccttg ctttaagtac
2700
gcctccaacc tgcccggctc cctgctcaag gagcagaaga tgaaccggga caacaaggaa
2760
gggcagggaac ctgccaaagcg gaggagtggag tgtgaggagg cgccccggcg caggctggat
2820
gagcactcga agaaggtgcc gccggacggc cttctgcga gaaagtctga cgacgtgcac
2880
ctgaggaaga agcggaaata tgagaagccc caggagctga gtggacgcaa cggggcctca
2940
tcgctcaaaa cgtcccccg ttcctcctct cactctctgc cgaggccccc tctaggcagc
3000
agcctcagcc cctgggtggag atccagtctc acttacttcc agcagcagggt gctcccacga
3060
cgacgcacct cctgaggccc cggggactgg cgagtcctgg gctgtccccc accccacccc
3120
gctggtcctc caccactg ctgcctctcc tgaggcttcc cagggtctcg cccagatct
3180
ctggctcgtg gttctggctt ggggcctggg aagctgtctg tgcttagagc ctctgttggg
3240
tgggatggaa gctgtgagtc cagggaaacct ctgaggagcc tgggtggcct gctccaccca
3300
cgggcggtgc tgtcaccagc cacaagggtg cgccaggagt ctctccagc tctagccatt
3360
cctgtcgggc cggggatttc cacagggctg tgctccagaa ctggctccca gagccaggga
3420
tgatttgaat gggcggtgc acatctccag gtctgtgggg tgggaggtca gttgggtggg
3480
aacagttcaa ctgtactctc acttcagct tcttccttga aagctgcagg cagggtctgc
3540
ccgtctgtcg gtcagacgtg gagatggcat ttgtggggaa ggcctccctc cagccctcc
3600
tctggagact tgggactcgt ggtggggtag ggtgtcgagg agaccaaac ccaagagcc
3660
gggagagcaag ctctcgtctc tttcttttct gtgacagctc aaacctggca aagaagataa
3720
gcttttcagg aaaaaggtag catcttcccc tccctcctgt gccccaggcc tagagcgtta
3780
gagctgcacc cgagctccct gggccacagt ccggtggcag gggggcggga ggccttgggg
3840
gggcgcagcc ctgagcccca gaggctgacg cgtctccgct ctgcctctca cggcggtcc
3900
tggagaagacg ccgaggaccg catggcgctg gccaaacagc ccctccggcg cttcaagcag
3960
gaaccggagg acgaactgcc cgaggcgccc ccaagacca gggagagcga tcaactccgc
4020
tcagctcccc ccaccgggg acccagacc gaaggggcg agggcccgga ggagaagaa
4080
aagtggaaga tgcgccggaa gcggcggtt cccaacaagg agctgagcag ggagctgagc
4140
aaggagctca accacagat ccagaggacg gagaacagcc tggccaacga gaaccagcag
4200
ccatcaagt cggagcctga gagcgagggc gaggagccca agcgccccc gggcatctgc
4260

gagcgtcccc accgcttcag caaggggctc aacggcacc cccgggagct gcggcaccag
4320
ctggggccca gcttgcgcag cccgccccgt gtcctctccc ggccccacc ctccgtgtcc
4380
ccgccccagt gtaaccagat ggagcgccat gtgatccggc cccccccat cagcccccg
4440
cctgactcgc taccctcgga cgtgggggca gcccacgtca tgcacaggga ggtgtggatg
4500
gccgtcttca gctacctcag ccaccaagac ctgtgtgtgt gcatgcgggt ctgcaggacc
4560
tggaaccgct ggtgctgcga taagcgggtg tggaccgcga ttgacctgaa ccactgcaag
4620
tctatcacac ccctgatgct gagtggcatc atccggcgac agcccgctct cctcgacctc
4680
agctggacca atatctccaa gaagcagctg agctggctca tcaaccggct gcttgggctc
4740
cgggaacttg tctgtcagg ctgctcatgg atcgcggtct cggccctttg cagctccagt
4800
tgtccgtgc tccggacct ggtgtccag tgggtggagg gactaaagga tgcccaaatg
4860
cgggatctcc tgtccccgcc caccagacaac aggccaggtg agttgccagg ctgggggttt
4920
ctgtgggggt ggggtgagcg agctagactg ttggatctgc ttttacctc agaccccg
4980
tgttcccaaa aggacatagg gatgagtctc tgcgtccatg ttctcagttt gcttcaggca
5040
cagaggggat ctgggaggag gcaggggctc ctgtgcacac gtgagactgc ctctggggc
5100
tccgctgcg tctctctgct ttctgttga ctgcctcatg gggctctgcg tgtgtctcac
5160
tgctttctta ttgactcgtc catggggctc tgcgtgcate tcacttcttt tctgttgact
5220
tgccccctgt tggtttcaag cctccactgc catcgggac agtgtgtgtg tgcaaggct
5280
tccaggatgg cactccccc tggactgggc tggactgcct aggtccgtgc ttctgcaca
5340
gccatgggga tcggagatgc tgcgcagcct ctgcactggt tggctgatga ctactgggtg
5400
gaatgtggcg atagtgttc taggtctttt agtttttcaa gagaactcta aaactaagt
5460
tttgatgtgg agtctgatt ttactgttg gaattatgat ttgggaggga agcagtttat
5520
aactaaatga aatctgagt ttctgtctgg ctggtgggac ttttagagt tcatgtcagc
5580
atgaccaggc ctctcggtc agattgacgg gttgccccct ccttctcgcc ccaccaggc
5640
agatggacaa tcggagcaag ctccggaaca tcgtggagct gcgcctggca ggcctggaca
5700
tcacagatgc ctctctcgg ctcatcatcc gccacatgcc cctgctctcc aagctccacc
5760
tcagttaactg taaccacgct accgaccagt ctatcaacct gctcactgct gttggcaca
5820
ccaccggaga ctcttaacc gagatcaacc tgtctgactg caataaggct actgatcagt
5880

gcctgtcctt cttcaaacgc tgtggaaca tctgtcatat tgacctgagg tactgcaagc
5940
aagtccacaa ggaagcgtgt gagcagtcca tagccgagat gtctgtgagt gtccagtttg
6000
ggcaagtaga agaaaaactc ctgcaaaaac tgagttatgc caaggataag tatgtaaata
6060
cggggcgggc tctgggaggg gagagacttt acaaaaatga gggcttttat ttccatttg
6120
gaacgtggga caacagacca caacgcaatt ccattttgca agtctttcca agggagaagc
6180
tgttcaacca cccgttttgg ggatgagtga gccgacactt tcccttggtc tttctgaatc
6240tgctttctgg accatttcta aggcggcctt tacaagaaga cattcctgtc 6300
ggagaggagg gtggacttcg gagaaattct catactgaag catgagctta ggagtcttcg
6360
ttagtgttag tgggtgtttg gacacttcat tccctgcaac accgaggttt tgggtgttga
6420
cataaagtgg accacacacc acatctgctg cgtctctgac actttttttt gtttggttgg
6480
ttttgttaca tcttacatta tgcagaacta tttttgtaca aattgtttta aagtatttta
6540
tgcaaggttt gaatgcatac cagtgttttt attgttttga gattgccaat ttctctgatt
6600
tccttaagggt aggagagaat ttaacgtgta cttcatcgac acaacccttc tacaaatgtg
6660
cccagatcta acaaagttag ctaagacctt ccacttaaaa gcattgtttta ctggaagtgg
6720
agagtctgct ttgtacctca agagtctcat gagcatgttg tggataaatg taaattatag
6780
tcaaagtaag atactctgcc aagtttcttc tgtagagaat tcaactttct caaattttta
6840
aatttctgact tcagcctttg cactcaggag gttctgctcc agcatgagct cttgtactta
6900
catagatcta atttatacag tgagtcaaga cgtagaataa atgctccac atagcetttc
6960
ttttgctttt gcttctctcc tctgaagtgt gagttgagtt ctcatttagg tttgtaacat
7020
ggctatttcc tagttgtaaa gttctgcatt tataagtgcc attgtgttaa ggtgtgtttt
7080
cctagacctt cctgatgag attttacctt tgttgaattt gtataaaca ttgtacaaaa
7140
aaaaaacaga ccacaacgca attcattttt gcaagtcttt ccaagggaga agctgttcaa
7200
ccaccctgtt gggggatgag tgagccgaca ctttcccttg gtctttctga atcgtaaatg
7260
cactgctttc tggacctttt ctaaggcgcc ctttacaaga agacattcct gtcggagagg
7320
aggggtgact tcggagaaat tctcactatg aagcatgagc ttaggagttt ctgttagtgg
7380
tagtgggtgt ttggacactt cattccttgc aacaccgagg ttttgggtgt tgacataaag
7440
tggaccacac accacatctg ctgcctctct gacacttttt tttgttttgt tggtttttgt
7500
acattctaca ttatgcagaa ctatttttgt acaaatgttt taaaagttat ttatgcaagg
7560

ttgtaatgca taccagtgtt tttattgttt tgagattgcc aattttcctg atttccttaa
 7620
 ggtaggagag aatttaacgt gtacttcacg gacacaaccc atctacaaat gtgccagat
 7680
 ctaacaaagt aggtcaagac cttccactta aaagcatgtt taactggaag ttgagagtct
 7740
 gctttgtacc tcaagagtta catgagcatg ttgtggataa atgtaaatta tagtcaaagt
 7800
 aagatactct gccaaagttc ctctgtagag aattcacttt tctcaaattt taaaattt
 7858

<210> 5994

<211> 402

<212> PRT

<213> Homo sapiens

<400> 5994

Met	Ala	Leu	Ala	Asn	Lys	Pro	Leu	Arg	Arg	Phe	Lys	Gln	Glu	Pro	Glu
1				5					10				15		
Asp	Glu	Leu	Pro	Glu	Ala	Pro	Pro	Lys	Thr	Arg	Glu	Ser	Asp	His	Ser
			20					25					30		
Arg	Ser	Ser	Ser	Pro	Thr	Ala	Gly	Pro	Ser	Thr	Glu	Gly	Ala	Glu	Gly
			35				40					45			
Pro	Glu	Glu	Lys	Lys	Lys	Val	Lys	Met	Arg	Arg	Lys	Arg	Arg	Leu	Pro
			50			55					60				
Asn	Lys	Glu	Leu	Ser	Arg	Glu	Leu	Ser	Lys	Glu	Leu	Asn	His	Glu	Ile
65					70					75				80	
Gln	Arg	Thr	Glu	Asn	Ser	Leu	Ala	Asn	Glu	Asn	Gln	Gln	Pro	Ile	Lys
				85					90					95	
Ser	Glu	Pro	Glu	Ser	Glu	Gly	Glu	Glu	Pro	Lys	Arg	Pro	Pro	Gly	Ile
			100					105						110	
Cys	Glu	Arg	Pro	His	Arg	Phe	Ser	Lys	Gly	Leu	Asn	Gly	Thr	Pro	Arg
			115				120					125			
Glu	Leu	Arg	His	Gln	Leu	Gly	Pro	Ser	Leu	Arg	Ser	Pro	Pro	Arg	Val
			130			135					140				
Ile	Ser	Arg	Pro	Pro	Pro	Ser	Val	Ser	Pro	Pro	Lys	Cys	Ile	Gln	Met
145					150					155				160	
Glu	Arg	His	Val	Ile	Arg	Pro	Pro	Pro	Ile	Ser	Pro	Pro	Pro	Asp	Ser
			165						170					175	
Leu	Pro	Leu	Asp	Asp	Gly	Ala	Ala	His	Val	Met	His	Arg	Glu	Val	Trp
			180					185					190		
Met	Ala	Val	Phe	Ser	Tyr	Leu	Ser	His	Gln	Asp	Leu	Cys	Val	Cys	Met
			195				200					205			
Arg	Val	Cys	Arg	Thr	Trp	Asn	Arg	Trp	Cys	Cys	Asp	Lys	Arg	Leu	Trp
210					215						220				
Thr	Arg	Ile	Asp	Leu	Asn	His	Cys	Lys	Ser	Ile	Thr	Pro	Leu	Met	Leu
225					230					235				240	
Ser	Gly	Ile	Ile	Arg	Arg	Gln	Pro	Val	Ser	Leu	Asp	Leu	Ser	Trp	Thr
			245						250					255	
Asn	Ile	Ser	Lys	Lys	Gln	Leu	Ser	Trp	Leu	Ile	Asn	Arg	Leu	Pro	Gly
			260				265						270		
Leu	Arg	Asp	Leu	Val	Leu	Ser	Gly	Cys	Ser	Trp	Ile	Ala	Val	Ser	Ala
			275				280					285			
Leu	Cys	Ser	Ser	Ser	Cys	Pro	Leu	Leu	Arg	Thr	Leu	Asp	Val	Gln	Trp

290	295	300
Val Glu Gly Leu Lys Asp Ala Gln Met Arg Asp Leu Leu Ser Pro Pro		
305	310	315
Thr Asp Asn Arg Pro Gly Glu Leu Pro Gly Trp Gly Phe Leu Trp Gly		320
	325	330
Trp Gly Glu Arg Ala Arg Leu Leu Asp Leu Leu Pro Ser Asp Pro		
	340	345
Ser Cys Ser Pro Lys Asp Ile Gly Met Ser Leu Cys Cys His Val Leu		350
	355	360
Ser Leu Leu Gln Ala Gln Arg Gly Ser Gly Arg Arg Gln Gly Leu Leu		365
	370	375
Cys Thr Arg Glu Thr Arg Ser Trp Gly Ser Ala Cys Val Ser Leu Leu		380
385	390	395
Ser Cys		400

<210> 5995

<211> 1528

<212> DNA

<213> Homo sapiens

<400> 5995

```

ntccggacga gtctaggcga gcaggtcctc gtccccccct cagaaatgga gaggtgtcct
60
ggtgcgcctt cagtctgtga cattcagttg aaccagggtg cgctctgctg ctctactgtc
120
ctcagtgatg tgtgccaat gttcagcgtg gacttcagca agcaagtcag cagctcggca
180
gcgtgccata gcaggcagtt tgtaccttg gcgtctggcc aagcacaggt ggttctctcg
240
tggtgggaca ttgaaatgga cctgagggc aagatcaagt gcaccatggc cccctctctg
300
gcacactcag acccagagga gatgcagtg cggaaccact ggnatgcagt gtgtgtactt
360
cctgccacaa gaggagcctg tgggtgcagg ctcagcgctc tatctggtag cccaccacga
420
tgactactgc gtatggtaca gcctgcagag gaccagcctt gaaaagaatg agagagtcct
480
ccagatgcgc cccgtgtgtg actgccaggc tcacctgtct tggaacccgg ctcggttttg
540
agagatcaat gaccaggaca gaactgatcg atactccag gctctgagga ccgtctgtaa
600
gccagacagc gtgtgcctgt gtgtcagcga tggcagcctg ctctccgtgc tggcccatca
660
cctgggggtg gaggcaggtg ttacagtcga gagttcagca gcttctcaca aactgttgag
720
aaaaatcttc aaggctaacc acttgaaga taaaattcac atcatagaga aacggccgga
780
attattaaca aatgaggacc tacagggcag aaaggtctct ctctcctctg gcgagccgtt
840
cttactactc agcctgtctg cgtggcgcaa cctctacttc tggtagctgc ggaccgtgt
900
ggaccagcac ctggggccag gtgccatggt gatgccccag gcagcctcgc tgcacgtgt
960

```

ggttggtggag ttcagggaacc tgtggcggat cggagagcccc tgtgggtgact gcgaaggctt
 1020
 cgacgtgcac atcatggacg acatgattaa cgtgacctg gacttcaggg agagcaggga
 1080
 agctgagccc caccgcctgt gggagtaccc atgccgcagc ctctccgagc cctggcagat
 1140
 cctgaccttt gacttcacgc agccgggtgcc cctgcagccc ctgtgtgccc agggcaccgt
 1200
 ggagctcaga agggccgggc agagccacgc agcgggtgcta tggatggagt accacctgac
 1260
 cccgagtgctgc acgctcagca ctggcctcct ggagcctgca gaccccgagg ggggctgctg
 1320
 ctggaacccc cactgcaagc aggcctctcta cttcttcagc cctgccccac atcccagagc
 1380
 actgctgggt ggcccacgga ctgtcagcta tgcagtggag ttccacccc acacaggcga
 1440
 catcatcatg gagttcaggc atgcagatac ccagactga ccactcttga gcaataaagt
 1500
 ggcctgaggg ctgggaaaaa aaaaaaaa
 1528

<210> 5996
 <211> 140
 <212> PRT
 <213> Homo sapiens

<400> 5996
 Xaa Arg Thr Ser Leu Gly Glu Gln Val Ile Val Pro Pro Ser Glu Met
 1 5 10 15
 Glu Arg Cys Pro Gly Ala Pro Ser Val Cys Asp Ile Gln Leu Asn Gln
 20 25 30
 Val Ser Pro Ala Asp Phe Thr Val Leu Ser Asp Val Leu Pro Met Phe
 35 40 45
 Ser Val Asp Phe Ser Lys Gln Val Ser Ser Ser Ala Ala Cys His Ser
 50 55 60
 Arg Gln Phe Val Pro Leu Ala Ser Gly Gln Ala Gln Val Val Leu Ser
 65 70 75 80
 Trp Trp Asp Ile Glu Met Asp Pro Glu Gly Lys Ile Lys Cys Thr Met
 85 90 95
 Ala Pro Phe Trp Ala His Ser Asp Pro Glu Glu Met Gln Trp Arg Asp
 100 105 110
 His Trp Xaa Ala Val Cys Val Leu Pro Ala Thr Arg Gly Ala Cys Gly
 115 120 125
 Ala Gly Leu Ser Ala Leu Ser Gly Ser Pro Pro Arg
 130 135 140

<210> 5997
 <211> 1759
 <212> DNA
 <213> Homo sapiens

<400> 5997
 tttttttttt tttttgtttt aacaacatg tttattagaa aagtaaaaaa tattgcatag
 60

gtcttaatac ttgaacatca agtgtattca tgaacagtga gtatcttatac ttcatgtataa
120
cagttctaga tggaagaccc agatggcact cctcccgagg aggggttcca gccccaccc
180
ttcagcccc tcccctgcc gctcaactct gcagtagacg atgggggaag gcttaaacgc
240
agctgccagg tgtaattttt caagtgtcaa agatcccaag tgatccctga caccaccccc
300
ttctactct tacattcatg cgtctgtaag atagctgcct acaacaggtc agtagtgatg
360
ctccgatcag aaaaacaaga tacaaaaaa acaacaaca caottgtgtc cttcagacca
420
gtaagatata caaacacac ccaagcactc cgacctcccc cctccctccg gctgctctga
480
ggagcacgtg cctcttcctt caccctgggc cgggctgggg cgggagcagc ccagctgctc
540
cttggtgtc acaccactgt taactgtcag taacaaaaat aataaggtag atgtacacac
600
cacatccagc tggaagcctt gttggccctt aagcctttgt ttcagtctac agtactgagg
660
ggtatgtgtc cccaatgcac agccaccgc acacaactca atgagcttcc tgggaaacac
720
tattccccca cctccacctt aggtggctgc ctcagtttcc caaccactgg aatcagtcct
780
tcagctctct cctctagtct ccacccaaa agttcagtcg tctctgtctt ggagggcact
840
gtcggcccc tcagggtgaa gttcaacact cctcaatgag cagctgttcc gagctgtaca
900
gcttcttctt gatgactcgg aagccagtgc tcagcgtcag ggactggctg aagccaggga
960
ggaagggaga gttggcggag cttaacagcc cctggatctt gggccagagt cgtgagtcca
1020
ggcgagcac gagggtcagc tggaagtggt gcaccaggct ggggtcagat gccagctggc
1080
caagctgtg gcagctcttg cctgtctcca cgcagacgtc cagcagcgcc ccccgaggc
1140
cgcacggctc gctgtaggcc aggcgcagta gttctttgcc cacctggctt accaactggc
1200
taggcacatc caggcgcgca gggcgtcgag agcccaggcg cgcctggggc aggtctctct
1260
gcagcagctg catcagggtg gcacacaagt gttcatcttc agggctactg agcagctcga
1320
agtcggggca cgacacccca tccaggtaag cgtgtctctc ctccggcccg aagccactgt
1380
tgctgctgtc cagggactcg cagtcagagc tctccaggct cgtggagcgg tcaaacacct
1440
ctcccggtt cgccgacccc caggctgagc cggcgggcgg atctgggggt ggagttcggg
1500
gcaaggagca gggcgagag gaggtggagc acgacgagaa gcggtcccaa aggttaggca
1560
tggtgaggac agacgccagg gcgtttgtct atgaactcag agtgccggag cgtagaagcc
1620
gcagtagcgc ggtcagcgag aactgctaag acaagtgcgt cctgccgctt gaatgggtgt
1680

gcgaaccogt gccaacacc gagagccgce cagaccogtc ccaggteccac gctcgcacct
 1740
 cccccccctt gccgaattc
 1759

<210> 5998

<211> 72

<212> PRT

<213> Homo sapiens

<400> 5998

Thr	Ala	Pro	Gly	Ser	Trp	Ala	Arg	Val	Val	Ser	Pro	Gly	Ala	Ala	Arg
1				5				10				15			
Gly	Ser	Ala	Gly	Arg	Trp	Ala	Pro	Gly	Trp	Gly	Arg	Val	Pro	Ala	Gly
			20					25				30			
Pro	Arg	Cys	Gly	Ser	Ser	Cys	Pro	Ala	Pro	Arg	Arg	Arg	Pro	Ala	Ala
		35					40				45				
Pro	Pro	Ala	Gly	Arg	Thr	Ala	Arg	Cys	Arg	Pro	Gly	Ala	Val	Val	Leu
	50					55				60					
Cys	Pro	Pro	Gly	Leu	Pro	Thr	Gly								
65						70									

<210> 5999

<211> 2759

<212> DNA

<213> Homo sapiens

<400> 5999

ncggccggaa gtggcgggcg cggcgctcggc ggcggcgtag ccgtagaggt gcacagagaa
 60
 caccocctagc atgaacagtg tgaggattcc accagctttt tcaccatgaa ggagacagac
 120
 cgggagggccg ttgcgacagc agtgcaaaagg gttgctggga tgctccagcg cccggaccag
 180
 ctggacaagg tggagcagta tcgcaggaga gaagcgcgga agaaggcctc cgtggaggcc
 240
 agattgaagg ccgccatcca gtcacagttg gacgggggtg gcacaggcct cagccagctc
 300
 cacaacgccc tgaatgacgt caaagacatc cagcagtcgc tggcagacgt cagcaaggac
 360
 tggaggcgca gcatcaacac cattgagagc ctcaaggagc tcaaaagcgc cgtgggtgcag
 420
 cacagccagc tcgcccagc cgtggagaac ctcaagaaca tcttctcagt gcctgagatt
 480
 gtgagggaga cccaggacct aattgaacaa ggggcactcc tgcaagccca ccggaagctg
 540
 atggaccttg agtgctcccg ggaagggtg atgtacgagc agtacccat ggacagtggg
 600
 aacacgcgtg acatgacct catccatggc tacttttgga gcacgcaggc gctctctgat
 660
 gagctggcta agcagctgtg gatggtgctg cagaggtcac tggctactgt ccgccgtgac
 720
 cccaccttgc ttggtctcagt gtgcaggatc attgaaaggg aagagaaaat tgacaggcgc
 780

atacttgacc ggaaaaagca aactggcttt gtctctcctg ggaggcccaa gaattggaag
840
gagaaaaatgt tcaccatctt ggagaggact gtgaccacca gaattgaggc cacacaggca
900
gataccagag agtctgacaa gatgtggctt gtccgccacc tggaaattat aagggaagtac
960
gtcctggatg acctcattgt cgccaaaaac ctgatggttc agtgcttttc tccccactat
1020
gagatcttta agaacctcct gaacatgtac caccaagccc tgagcacgag gatgcaggac
1080
ctcgcatcgg aagacctgga agccaatgag atcgtgagcc tcttgacgtg ggtcttaaac
1140
acctacacaa gtactgagat gatgaggaac gtggagctgg ccccggaagt ggatgtcggc
1200
accctggagc cattgcttcc tccacacgtg gtctctgagc tgcttgacac gtacatgtcc
1260
acgtcacttt caaacatcat cgctggctg cggaagcgc tggagacaga caagaaagac
1320
tgggtcaaa agacagagcc agaagccgac caggacgggt actaccagac cacactccct
1380
gccattgtct tccagatgtt tgaacagaat ctcaagttg ctgctcagat aagtgaagat
1440
ttgaaaacaa aggtactagt tttatgtctt cagcagatga attcttctct aagcagatat
1500
aaagatgaag cgcagctgta taaagaagag cacctgagga atcggcagca ccctcactgc
1560
tacgttcagt acatgatcgc catcatcaac aactgccaga ccttcaagga atccatagtc
1620
agtttaaaaa gaaagtattt aaagaatgaa gtggaagagg gtgtgtctcc gagccagccc
1680
agcatggagc ggattttaga cgccatcgcg aaggagggct gcacgggttt gctggaggag
1740
gtcttcctgg acctggagca acatctgaat gaattgatga cgaagaagtg gctattaggg
1800
tcaaacgctg tagacattat ctgtgtcacc gtggaagact atttcaacga ttttgccaaa
1860
attaaaaagc cgtataagaa gaggatgacg gccgaggcgc accggcgctg ggtggtggag
1920
tacctgcggg cggtcatgca gaagcgcatt tccctccgga gccggaggga gcgcaaggag
1980
ggtgcgagga agatgggttag ggaggcagag cagcggcgct tectgttccg gaagtggcg
2040
tccggtttcg gggaagacgt ggacggatac tgcgacacca tcgtggctgt ggcgaagtg
2100
atcaagctga cagacccttc tctgctctac ctggaggtct ccactctgtt cagcaagtat
2160
ccagacatca gggatgacca catcgggtgcg ctgctggctg tgctgggga gccagccgt
2220
gacatgaagc agaccatcat ggagaccctg gacgagggcc cagcacaggc cagccccagc
2280
tacgtcccc tcttcaagga cattgtggtg cccagcctga acgtggccaa gctgtctaag
2340
tagcctccgc cggcctgccc tgctcgcccc tccacagcct cggctccctgc ctttagaaaac
2400

gctgggacagc tgattgctct ccttgggccac acgtgctcct ttagctgca cggcctgtct
 2460
 ttagtggtcca gtgtgatgca cgggtgtgc gtcgagtgc cgtcccgagg ccacgtgcgg
 2520
 agggccctca ctgtgctgtc aaagcctgt ggtgtcaggg cctgcgcga cagcctctct
 2580
 tgggtgcttg tttgttgca ggttgaaag tgtgtggggc acagaggagc tgcacctccc
 2640
 tgcctctctc ctccctgggc ettcaccgca ccccatctgc ttaagtgtc ggaaccccg
 2700
 cacctaatta aagttctcg gcttctcag agaaaaaaa aaaaaaaaa aaaaaaaaa
 2759

<210> 6000

<211> 757

<212> PRT

<213> Homo sapiens

<400> 6000

His	Glu	Gln	Cys	Glu	Asp	Ser	Thr	Ser	Phe	Phe	Thr	Met	Lys	Glu	Thr
1				5					10				15		
Asp	Arg	Glu	Ala	Val	Ala	Thr	Ala	Val	Gln	Arg	Val	Ala	Gly	Met	Leu
		20					25						30		
Gln	Arg	Pro	Asp	Gln	Leu	Asp	Lys	Val	Glu	Gln	Tyr	Arg	Arg	Arg	Glu
		35					40					45			
Ala	Arg	Lys	Lys	Ala	Ser	Val	Glu	Ala	Arg	Leu	Lys	Ala	Ala	Ile	Gln
		50				55					60				
Ser	Gln	Leu	Asp	Gly	Val	Arg	Thr	Gly	Leu	Ser	Gln	Leu	His	Asn	Ala
				70					75					80	
Leu	Asn	Asp	Val	Lys	Asp	Ile	Gln	Gln	Ser	Leu	Ala	Asp	Val	Ser	Lys
				85					90					95	
Asp	Trp	Arg	Gln	Ser	Ile	Asn	Thr	Ile	Glu	Ser	Leu	Lys	Asp	Val	Lys
			100					105					110		
Asp	Ala	Val	Val	Gln	His	Ser	Gln	Leu	Ala	Ala	Ala	Val	Glu	Asn	Leu
			115				120						125		
Lys	Asn	Ile	Phe	Ser	Val	Pro	Glu	Ile	Val	Arg	Glu	Thr	Gln	Asp	Leu
			130			135					140				
Ile	Glu	Gln	Gly	Ala	Leu	Leu	Gln	Ala	His	Arg	Lys	Leu	Met	Asp	Leu
				150					155					160	
Glu	Cys	Ser	Arg	Asp	Gly	Leu	Met	Tyr	Glu	Gln	Tyr	Arg	Met	Asp	Ser
				165					170					175	
Gly	Asn	Thr	Arg	Asp	Met	Thr	Leu	Ile	His	Gly	Tyr	Phe	Gly	Ser	Thr
			180				185						190		
Gln	Gly	Leu	Ser	Asp	Glu	Leu	Ala	Lys	Gln	Leu	Trp	Met	Val	Leu	Gln
			195				200					205			
Arg	Ser	Leu	Val	Thr	Val	Arg	Arg	Asp	Pro	Thr	Leu	Leu	Val	Ser	Val
			210			215					220				
Val	Arg	Ile	Ile	Glu	Arg	Glu	Glu	Lys	Ile	Asp	Arg	Arg	Ile	Leu	Asp
			225			230				235				240	
Arg	Lys	Lys	Gln	Thr	Gly	Phe	Val	Pro	Pro	Gly	Arg	Pro	Lys	Asn	Trp
				245					250					255	
Lys	Glu	Lys	Met	Phe	Thr	Ile	Leu	Glu	Arg	Thr	Val	Thr	Thr	Arg	Ile
			260				265						270		
Glu	Gly	Thr	Gln	Ala	Asp	Thr	Arg	Glu	Ser	Asp	Lys	Met	Trp	Leu	Val

275	280	285
Arg His Leu Glu Ile Ile	Arg Lys Tyr Val Leu Asp	Asp Leu Ile Val
290	295	300
Ala Lys Asn Leu Met Val	Gln Cys Phe Pro	Pro His Tyr Glu Ile Phe
305	310	315
Lys Asn Leu Leu Asn Met Tyr	His Gln Ala Leu Ser Thr	Arg Met Gln
325	330	335
Asp Leu Ala Ser Glu Asp	Leu Glu Ala Asn Glu Ile Val	Ser Leu Leu
340	345	350
Thr Trp Val Leu Asn Thr	Tyr Thr Ser Thr Glu Met Met	Arg Asn Val
355	360	365
Glu Leu Ala Pro Glu Val	Asp Val Gly Thr Leu Glu Pro	Leu Leu Ser
370	375	380
Pro His Val Val Ser Glu	Leu Leu Asp Thr Tyr Met Ser	Thr Leu Thr
385	390	395
Ser Asn Ile Ile Ala Trp	Leu Arg Lys Ala Leu Glu Thr	Asp Lys Lys
405	410	415
Asp Trp Val Lys Glu Thr	Glu Pro Glu Ala Asp Gln	Asp Gly Tyr Tyr
420	425	430
Gln Thr Thr Leu Pro Ala	Ile Val Phe Gln Met Phe	Glu Gln Asn Leu
435	440	445
Gln Val Ala Ala Gln Ile	Ser Glu Asp Leu Lys Thr	Lys Val Leu Val
450	455	460
Leu Cys Leu Gln Gln Met	Asn Ser Phe Leu Ser Arg Tyr	Lys Asp Glu
465	470	475
Ala Gln Leu Tyr Lys Glu	Glu His Leu Arg Asn Arg	Gln His Pro His
485	490	495
Cys Tyr Val Gln Tyr Met	Ile Ala Ile Ile Asn Asn	Cys Gln Thr Phe
500	505	510
Lys Glu Ser Ile Val Ser	Leu Lys Arg Lys Tyr Leu	Lys Asn Glu Val
515	520	525
Glu Glu Gly Val Ser Pro	Ser Gln Pro Ser Met Asp	Gly Ile Leu Asp
530	535	540
Ala Ile Ala Lys Glu Gly	Cys Ser Gly Leu Leu Glu	Glu Val Phe Leu
545	550	555
Asp Leu Glu Gln His Leu	Asn Glu Leu Met Thr Lys	Lys Trp Leu Leu
565	570	575
Gly Ser Asn Ala Val Asp	Ile Ile Cys Val Thr Val	Glu Asp Tyr Phe
580	585	590
Asn Asp Phe Ala Lys Ile	Lys Lys Pro Tyr Lys Lys	Arg Met Thr Ala
595	600	605
Glu Ala His Arg Arg Val	Val Val Glu Tyr Leu Arg	Ala Val Met Gln
610	615	620
Lys Arg Ile Ser Phe Arg	Ser Pro Glu Glu Arg Lys	Glu Gly Ala Glu
625	630	635
Lys Met Val Arg Glu Ala	Glu Gln Arg Arg Phe	Leu Phe Arg Lys Leu
645	650	655
Ala Ser Gly Phe Gly Glu	Asp Val Asp Gly Tyr Cys	Asp Thr Ile Val
660	665	670
Ala Val Ala Glu Val Ile	Lys Leu Thr Asp Pro Ser	Leu Leu Tyr Leu
675	680	685
Glu Val Ser Thr Leu Val	Ser Lys Tyr Pro Asp Ile	Arg Asp Asp His
690	695	700
Ile Gly Ala Leu Leu Ala	Val Arg Gly Asp Ala Ser	Arg Asp Met Lys

705		710		715		720
Gln Thr Ile Met	Glu Thr Leu Glu Gln Gly Pro Ala Gln Ala Ser Pro					
	725		730		735	
Ser Tyr Val Pro Leu Phe Lys Asp Ile Val Val Pro Ser Leu Asn Val						
	740	745		750		
Ala Lys Leu Leu Lys						
755						

<210> 6001

<211> 2490

<212> DNA

<213> Homo sapiens

<400> 6001

```

nggcgccttt  cagctgaaaa  acagctcgcg  ctgcagcaag  ctgctggga  agctcccagt
60
tctaaagaga  ggctgtttac  cagaacagca  taacaagggc  aggtctgact  gcaaggctgg
120
gactgggagg  cagagccgcc  gccaaagggg  cctcgggtta  aactgggtcg  ttcaatcacc
180
tgcaagacga  aggaggaag  gatgctgttg  gcctgggtac  aagcattcct  cgtcagcaac
240
atgctcctag  cagaagccta  tggatctgga  ggctgtttct  gggacaacgg  ccactgttac
300
cgggaggacc  agacctcccc  cgcgcggggc  ctccgctgcc  tcaactggct  ggacgcgcag
360
agcgggctgg  cctcggcccc  cgtgtcgggg  gccggcaatc  acagtactgt  ccgaaaccgc
420
gacgaggacc  ccgcggggcc  ctggtgtctc  gtcagtggcg  aggccggcgt  ccctgagaaa
480
cggccttgcg  aggaacctgc  ctgtccagag  accacctccc  aggccctgcc  agccttcacg
540
acacaaatcc  aggaagcgtc  tgaaggccca  ggtgcagatg  aggtgcaggt  gttegtcctc
600
gccaaacgcc  tgcccgcctc  gagtgaaggc  gcagctgtgc  agccagtgat  tgggatcagc
660
cagcgggtgc  ggatgaactc  caaggagaaa  aaggacctgg  gaactctggg  ctacgtgtcg
720
ggcattacca  tgatggtgat  catcattgcc  atcggagctg  gcatcatctt  gggtacttcc
780
tacaagaggg  ggaaggattt  gaaagaacag  catgatcaga  aagtatgtga  gaggggagatg
840
cagcgaatca  ctctgccctt  gtctgccttc  accaacccca  cctgtgagat  tgtggatgag
900
aagactgtcg  tggccacac  cagccagact  ccagtgtacc  ctcaggaggg  caccaccccc
960
cttatggggc  aggccgggac  tcctgggggc  tgagccccc  cagtgggcag  gagcccatgc
1020
agacactgtg  gcaggacagc  ccacctcct  acagctagga  ggaactacca  ctttgtgttc
1080
tggttaaaac  cctaccactc  ccccgctttt  ttggcgaatc  ctagtaagag  tgacagaagc
1140
aggtggcctc  gtgggctgag  ggtaaggctg  ggtagggtcc  taacagtgtc  ccttgtccat
1200

```

cccttgagc agatattgtc tgtggatgga gacagtggca gctccacag tgatgctgct
 1260
 gctaagggtc tccaaacatt gcctgcaccc ctggaactga accagggata gacggggagc
 1320
 tccccaggc tctctgtgct ttactaaga tggcctcagt ctccactgtg ggcttgagtg
 1380
 gcatacactg ttattcatgg ttaaggtaaa gcaggtaag ggatggcatt gaaaaaatat
 1440
 atttagtttt taaaatatatt gggatggaac tccctactga cctctgagaa ctggaacaga
 1500
 gtttgtacag aagtcagaac ttggggttgg gaatgagatc taggttggg ctgctggtat
 1560
 gcttcagctt gctggcaatg atgtgccttg acaaccgtg gccaggcctg gggccaggga
 1620
 ctcttctgt ttcataagga aaggaagaat tgcactgagc attccactta ggaagaggat
 1680
 agagaaggat ctgctccgcc ttggccaca ggagcagagg cagacctggg atgccccagt
 1740
 ttctcttcag ggatggatag tgacctgtct tcattttgca caggtaagag agtagttagc
 1800
 taacctatgg gaattatact gtggggcctt gtgagctgct tctaagaggc taacctggaa
 1860
 actaagctca gaggcaaggc aataaagcac ttcagggtct gctcccaag tgggctgctat
 1920
 ttgacagggt gtctcgctgg cgtccaggtc agcaccttc ttaggggcac tggggctagg
 1980
 gtcacagccc ctaactcata aagcaatcaa agaaccatta gaaagggctc attaagcctt
 2040
 ttggcacacg gaccccagag aggaaaaagt gaactgcccc aggtcgtaag caagctactg
 2100
 gcatggcaag agcccagctt cctgacggag cgcaacattt ctccactgca ctgtgctagc
 2160
 agctcagcag ggctctaac ctgtgatgtc aactcaaga gcccttgga gctcctagcc
 2220
 atagagcttc ctttccagaa cccttccact gcccaatgtg gagacagggg ttagtggggc
 2280
 ttcttatgga gccatctgct ttggggacct agacctcagg tggctctctg gtgttagtga
 2340
 tgctggagaa gagaatatta ctggtttcta cttttctata aaggcatttc tctatatata
 2400
 tgttttatat acctcattct gacacctgca tatagtgtgg gaaattgctc tgcatttgac
 2460
 ttaattaaaa aaaaaaaaaa gactccaaaa
 2490

<210> 6002

<211> 263

<212> PRT

<213> Homo sapiens

<400> 6002

Met Leu Leu Ala Trp Val Gln Ala Phe Leu Val Ser Asn Met Leu Leu
 1 5 10 15
 Ala Glu Ala Tyr Gly Ser Gly Gly Cys Phe Trp Asp Asn Gly His Leu

20 25 30
 Tyr Arg Glu Asp Gln Thr Ser Pro Ala Pro Gly Leu Arg Cys Leu Asn
 35 40 45
 Trp Leu Asp Ala Gln Ser Gly Leu Ala Ser Ala Pro Val Ser Gly Ala
 50 55 60
 Gly Asn His Ser Tyr Cys Arg Asn Pro Asp Glu Asp Pro Ala Gly Pro
 65 70 75 80
 Trp Cys Tyr Val Ser Gly Glu Ala Gly Val Pro Glu Lys Arg Pro Cys
 85 90 95
 Glu Asp Leu Arg Cys Pro Glu Thr Thr Ser Gln Ala Leu Pro Ala Phe
 100 105 110
 Thr Thr Glu Ile Gln Glu Ala Ser Glu Gly Pro Gly Ala Asp Glu Val
 115 120 125
 Gln Val Phe Ala Pro Ala Asn Ala Leu Pro Ala Arg Ser Glu Ala Ala
 130 135 140
 Ala Val Gln Pro Val Ile Gly Ile Ser Gln Arg Val Arg Met Asn Ser
 145 150 155 160
 Lys Glu Lys Lys Asp Leu Gly Thr Leu Gly Tyr Val Leu Gly Ile Thr
 165 170 175
 Met Met Val Ile Ile Ile Ala Ile Gly Ala Gly Ile Ile Leu Gly Tyr
 180 185 190
 Ser Tyr Lys Arg Gly Lys Asp Leu Lys Glu Gln His Asp Gln Lys Val
 195 200 205
 Cys Glu Arg Glu Met Gln Arg Ile Thr Leu Pro Leu Ser Ala Phe Thr
 210 215 220
 Asn Pro Thr Cys Glu Ile Val Asp Glu Lys Thr Val Val Val His Thr
 225 230 235 240
 Ser Gln Thr Pro Val Asp Pro Gln Glu Gly Thr Thr Pro Leu Met Gly
 245 250 255
 Gln Ala Gly Thr Pro Gly Ala
 260

<210> 6003

<211> 3107

<212> DNA

<213> Homo sapiens

<400> 6003

tttttttttt tttttttttt tttttttttt tttttttttt tttttttttt ctagagaaaa
 60
 ttgaacttgggt ttattaccgt cactatagaa acagggcgacc tgcttcccta ggtggctccc
 120
 agcagcgtgg cccacgcttg gacacccccc tccccagaaa tctggactga gacccagcgc
 180
 ctctgtctgg cttctcacga acagctgtct ggagagcttc acgtgctgga gagctgttgc
 240
 tccgtcatcg ctcacagagg catgggcccc aatttcagcc cctctgcct ctcggtccg
 300
 tggccagcaa tgggctgtcc agcgaagggc ctcgcacaa ctgtcaggga ctggtctggc
 360
 acgcagccag cgtgaaatcc tcaggttggt tctcttcaga tgtggagggt gaccgcagcc
 420
 ctgctcacag agaggggtgga aactggcgca ggtgtgggag cagctccct tcggggtctc
 480

ctcgaagtac ccagggtctt cccagcgct gccgcgcc agccttctga acacctgcc
540
cgtggatcac aaccttgtcg ctcttctcgt ctcaactaga agcaactgca gcatggccct
600
tcccgaatttc caggtgcatg tcgaaaagcg tgcagtggcc ttgtgacgtg gccggccct
660
tggcaaggaa gtctctggcgg gtatcagcct ctgcaactgca ccctgggtgg actgagtcgg
720
ggccaggatt gtgtcagggg aggtggagga gacgcgggga cagccggttc acagggccct
780
ggacggagca ctccggggcc agagctgttc tgagacttgg tgcagattca aagattttaa
840
aatgcctggg gctacataag gggcagcact tctcagaaga gggcttctga aaggggcatt
900
ccttggcact gagatggaga cggcagtgcc ttttaccct ctccgtgagg ccttgtgctg
960
tgctcagcct tgggtgtgcag agatgggcag aggggaggga gaggctctgc cagacgggta
1020
tgtggggagc agggttgtgg ccaggggccc cgctctgccc tctcgggatt gcagagctgg
1080
agctctctcc agcttctcat gtgagtcga gtgctccaca gaagccactg agggccaccag
1140
gaatgagccc ctgggtcccc gctgccacct gcagggtgct cgtgagctg ggcctgggct
1200
cagtggtgcaa gaggcatctc ctctcacgtg accgtgggct cagatctgcc aacactccg
1260
agaacagggt agggggcagg ggctgcacga aggagatct accctccag aggaggtggg
1320
gcccagggcc cgggacctga accctggcca cctgccgacc agcagtgca gttgtgagac
1380
gccacctgca gtgacacaca cagcccatgg gtctactca ggcctccgtg gcctgacttg
1440
ggggctaagg ggagctcagg agaaacccaa agtccagcca gcaggggccc cccacagaca
1500
ccccctgcac acacaggcag gggggcctac tgtgtctcat gcatcatcac accggagggc
1560
aaactctcgg tgggtgagctt gggcccgacc ggcctccat gaatggtgac cacaccagc
1620
tgggtggcgg tgtggccttg ggtttctggt gggggcacgg gatgcacaga gctgggttct
1680
tgggagacgg tgccaaggcc agctgtcccc aagggtggcc ctggcacaat gccaccaga
1740
cctgagggag ggactgagac cacctcaat ctgncagttc ctggggtcac gcagagtcca
1800
cgtggggaaa ggggcagtg gcccctatgc gtgcagggtg tggctttgcc angcagagg
1860
agcccgctg gccctgggccc cagggtctcg ggcgtggca gagactgcgg tgggaatggc
1920
cctgcagagg cccagcccc ctgtctctct gatttccagc caactgcctt gggccagct
1980
ccaaagggaag ggggccaag ctctctgaat aaaaggtgca catgaggacc aaggaggcct
2040
gacactggga ggggacagct ccacctctc tcccggaca ccccaaaagg cggagacgtt
2100

cacaagctgt cctgtcggcg gctgctgttt gtggaggagt aaagcatcct agcgagactg
 2160
 caggctcggt gtacatctga ttactgaat tttaaagctt gggatgttag tggggaagag
 2220
 gcgaggtgag cattgcgtga cgcgaggac taggcggggc gggactgca cctggctagg
 2280
 caccceccacc ctgggcaact tgcccacgga cccaggggca gtgagtagtg acaggaggta
 2340
 gcccggggtg agacctctca cagcaagaag atggtgtggt tgctgggggc tccctggaga
 2400
 gtgtcgtccc tgcggccctt ggggaagtgt cctcacgac ggaagggttc ctgtcagtg
 2460
 ggtcccggtg cctgatagtg gcggtgggag ggtgggggtca cgtgtcctca aggtcctgaa
 2520
 tgcccagctc tgcccattc ctctgattcc cagtgggtgc tagctggacc cagctggtgt
 2580
 cctgggcatg aaggcagggc caccgtcccc agcagggtgt gccctcctgg ccagctgagc
 2640
 atcctggcca ccatcagcgt ccagggtgcc ctactcgccc ttcctcttct tcagaagcct
 2700
 ttgcgggacct gacctgggac agcttccccg gattccccct ccgcttctca tcaacgtcca
 2760
 ggacccaagc tgcccgcgcc aggccagccc ttgccacttg gggcccggtc ttcacacgtg
 2820
 ggagctctgac cgggggtcct cctgaacag tcctgggtct gacgctctca attatcaccc
 2880
 acggaccacac acgacgcccc gctctgggag gggatggggc cgggggtgtc gcggggtccc
 2940
 gccaggcgag gccccagcaa ccacccatc ttcttgctgt gagagggttc accccgggt
 3000
 acctcctgtc actactcagt gcctgggggt ccgtggggcaa gttgccaggc gtgggggtgc
 3060
 ctaggcaggt gcagtccccg ccccgctag tctcggcgt caccgct
 3107

<210> 6004

<211> 140

<212> PRT

<213> Homo sapiens

<400> 6004

Met Val Thr Thr Pro Ser Trp Trp Ala Val Trp Pro Trp Val Ser Gly
 1 5 10 15
 Gly Ala Thr Gly Cys Thr Glu Leu Gly Ser Trp Glu Thr Val Pro Arg
 20 25 30
 Pro Ala Val Pro Lys Val Ala Pro Gly Thr Met Pro Thr Arg Pro Glu
 35 40 45
 Gly Gly Thr Glu Thr Thr Ser Met Leu Xaa Val Pro Gly Val Thr Gln
 50 55 60
 Ser Pro Arg Gly Glu Arg Gly Ser Gly Pro His Ala Val Gln Gly Val
 65 70 75 80
 Ala Leu Pro Xaa Arg Gly Ser Pro Arg Gly Pro Gly Pro Arg Ala Pro
 85 90 95
 Gly Arg Gly Arg Asp Cys Gly Gly Asn Gly Pro Ala Glu Ala Pro Ala

atcgctgtga tgtggaccca gctccaggga gcagagtgtc ggggatggag gggcccagcc
 1320
 tggactgact gctacttctt gtctctgttt ccattatcac ccagagagggg acaagatagg
 1380
 acatggcctg gaccaggagg gcaggcctcc cactcagagt ctgggtctca ctggccccaa
 1440
 gtctccacc cagaactctg gccaaaaatg gctctctagg tgggctgtgc aggcacaaagca
 1500
 aagctcaggg ctggttccca gctggcctga gcaggggggcc tgccaccaga cccacccacg
 1560
 ctctgacgag aggtttttcc acctccagca agtggtccca gcaaccagct ccatectggc
 1620
 tgcttgctt ccatttccgt gtagatggag atcactgtgt gtaataaacc acaagtgcgt
 1680
 gaaaaaaaa aaaaaaaaa aaaaaaaaa aaaaaaaaa aaaaaaaag
 1735

<210> 6006

<211> 200

<212> PRT

<213> Homo sapiens

<400> 6006

Glu	Leu	Gly	Leu	Pro	Gly	Ala	Pro	Gly	Ile	Asp	Gly	Glu	Lys	Gly	Pro
1			5						10				15		
Lys	Gly	Gln	Lys	Gly	Asp	Pro	Gly	Glu	Pro	Gly	Pro	Ala	Gly	Leu	Lys
			20					25				30			
Gly	Glu	Ala	Gly	Glu	Met	Gly	Leu	Ser	Gly	Leu	Pro	Gly	Ala	Asp	Gly
			35				40					45			
Leu	Lys	Gly	Glu	Lys	Gly	Glu	Ser	Ala	Ser	Gln	Pro	Thr	Gly	Glu	Pro
			50			55				60					
Gly	Ser	Ala	His	Ser	Glu	Pro	Gly	Pro	Pro	Gly	Pro	Pro	Gly	Pro	Pro
65					70				75					80	
Gly	Pro	Met	Gly	Leu	Gln	Gly	Ile	Gln	Gly	Pro	Lys	Gly	Leu	Asp	Gly
			85						90				95		
Ala	Lys	Gly	Glu	Lys	Gly	Ala	Ser	Gly	Glu	Arg	Gly	Ser	Ser	Gly	Leu
			100				105					110			
Pro	Gly	Pro	Val	Gly	Pro	Pro	Gly	Leu	Ile	Gly	Leu	Pro	Gly	Thr	Lys
			115				120					125			
Gly	Glu	Lys	Gly	Arg	Pro	Gly	Glu	Pro	Gly	Leu	Asp	Gly	Phe	Pro	Gly
			130				135				140				
Pro	Arg	Gly	Glu	Lys	Gly	Asp	Arg	Ser	Glu	Arg	Gly	Glu	Lys	Gly	Glu
145					150					155					160
Arg	Gly	Val	Pro	Gly	Arg	Lys	Gly	Val	Lys	Gly	Gln	Lys	Gly	Glu	Pro
			165						170				175		
Gly	Pro	Pro	Gly	Leu	Asp	Gln	Pro	Cys	Pro	Val	Gly	Pro	Asp	Gly	Leu
			180					185					190		
Pro	Val	Pro	Gly	Cys	Trp	His	Lys								
			195				200								

<210> 6007

<211> 693

<212> DNA

<213> Homo sapiens

<400> 6007
 cagcccccta agccatctcc ctccagtgac aacctctatt cagccttcac cagtgatggg
 60
 gccatttcag taccaagcct ttctgctcca ggtcaaggga agatggtgaa aaaagtctgt
 120
 ccttgcaacc agctctgtag aaccagcagc acaaacactg ttgggggaac agtgaacagc
 180
 caagccgccc aagctcagcc tcctgccatg acgtccagca ggaagggcac attcacagat
 240
 gacttgcaaca agttggtaga caattggggc cgagatgccca tgaatctctc aggcaggaga
 300
 ggaagcaaaag ggcacatgaa ttatgagggc cctggaatgg caaggaagt ctctgcacct
 360
 gggcaactgt gcattccat gacctgaac ctgggtggct ctgccccat ctctgcagca
 420
 tcagctacct ctctagggtca cttaccaag tctatgtgcc cccacagca gtatgcttt
 480
 ccagctaccc catttggcgc tcaatggagt gggacgggtg gccacgacc acagccactt
 540
 ggccagttcc aacctgtggg aactgcctcc ttgcagaatt tcaacatcag caatttgcag
 600
 aaatccatca gcaaccccc aggtccaac ctgcggaacca cttagaccta gagacattaa
 660
 ctgaatagat ctggggggcag gagatggaat gct
 693

<210> 6008
 <211> 214
 <212> PRT
 <213> Homo sapiens

<400> 6008
 Gln Pro Leu Lys Pro Ser Pro Ser Ser Asp Asn Leu Tyr Ser Ala Phe
 1 5 10 15
 Thr Ser Asp Gly Ala Ile Ser Val Pro Ser Leu Ser Ala Pro Gly Gln
 20 25 30
 Gly Lys Met Val Lys Lys Val Cys Pro Cys Asn Gln Leu Cys Arg Thr
 35 40 45
 Ser Ser Thr Asn Thr Val Gly Ala Thr Val Asn Ser Gln Ala Ala Gln
 50 55 60
 Ala Gln Pro Pro Ala Met Thr Ser Ser Arg Lys Gly Thr Phe Thr Asp
 65 70 75 80
 Asp Leu His Lys Leu Val Asp Asn Trp Ala Arg Asp Ala Met Asn Leu
 85 90 95
 Ser Gly Arg Arg Gly Ser Lys Gly His Met Asn Tyr Glu Gly Pro Gly
 100 105 110
 Met Ala Arg Lys Phe Ser Ala Pro Gly Gln Leu Cys Ile Ser Met Thr
 115 120 125
 Ser Asn Leu Gly Gly Ser Ala Pro Ile Ser Ala Ala Ser Ala Thr Ser
 130 135 140
 Leu Gly His Phe Thr Lys Ser Met Cys Pro Pro Gln Gln Tyr Gly Phe
 145 150 155 160
 Pro Ala Thr Pro Phe Gly Ala Gln Trp Ser Gly Thr Gly Gly Pro Ala

```

165          170          175
Pro Gln Pro Leu Gly Gln Phe Gln Pro Val Gly Thr Ala Ser Leu Gln
180          185          190
Asn Phe Asn Ile Ser Asn Leu Gln Lys Ser Ile Ser Asn Pro Pro Gly
195          200          205
Ser Asn Leu Arg Thr Thr
210

<210> 6009
<211> 1570
<212> DNA
<213> Homo sapiens

<400> 6009
nnctgcacca tggcgcccg gctgtgcagc cgaatgcgggg ctgtgcgtgc agctcccccac
60
agcggcccg tggctgtcct ggcgcagggtg gtcggcgct caacagacac cgtgtatgac
120
gtggtggtgt cgggtggagg cctggtgggc gctgccatgg cctgtgcctt gggalatgat
180
attcactttc atgacaagaa aatcctgttg ctcgaagcag gtccaaagaa agtactggag
240
aaattgtcag aaacttacag caacagggtc agctccattt cccctggctc tgcaacgctt
300
ctcagtagtt ttggtgcctg ggaccatata tgcaacatga gatacagagc ctttcggcga
360
atgcagggtg gggacgcctg ctcagaggcc ctgataatgt ttgataagga taatttagat
420
gacatgggct atactgtgga gaatgatgac atcatgcatg ctctactaa cgagtggag
480
gctgtgtctg accgagtgac ggttctctac aggagcaaag ccattcgcta tacctggcct
540
tgtccatttc ctatggccga ctccagccct tgggttcata ttaccctagg tgatggcagc
600
accttcagaa ccaaatgtgt gatagggtga gatggtcaca actccggagt acggcaggct
660
gttggaatcc agaattgtgag ctggaactat gaccagtctg ctgttgtggc tactctgcac
720
ttatcagagg ccacagaaaa caacgtagcc tggcagagat ttcttccttc tgggctatt
780
gctctgctcc cgctctcaga caccttgagt tccttggttt ggtccacgtc coatgaacat
840
gcagcagagc tagttagcat ggataggaa aaatttgtgg atgccgttaa ctctgccttt
900
tggagtgtgt ctgaccacac ggacttcac gacacagctg gtgccatgct cgagtatcct
960
gtcagccttc tgaagcccac taagggtctg gctcgccagc tgcctccaaag cgtaccatgg
1020
gtggatgcca aaagccgagt tctgtttcct cttgggttgg gacatgctgc tgagtacgtc
1080
aggcctcggg tggcgctcat tggggatgca gccacagag tccatccgct tgcaggacag
1140
ggtgtcaaca tgggcttttg ggatatctcc agcttggccc atcacctcag tacggcagcc
1200

```

ttcaatggga aggacttagg ttccgtgagc cacctcacag gttatgaaac agaagacag
 1260
 cgtcacaca ctgctcttct ggctgctaca gacttactaa aaaggctcta tcttaccagt
 1320
 gctccccgc ttgtgttgct caggacgtgg ggcttgagg ccacaaatgc agtgtctcca
 1380
 ctcaaagaac agattatggc ctttgcaagc aaatgagtac tcctctccta aagaagaagt
 1440
 acgttgatga aaaagaacat cctgccagc acccatcata catattttca agatcttatt
 1500
 taatttaata aacttacttt acattaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa
 1560
 aaaaaaaaaa
 1570

<210> 6010

<211> 468

<212> PRT

<213> Homo sapiens

<400> 6010

Met Ala Ala Arg Leu Val Ser Arg Cys Gly Ala Val Arg Ala Ala Pro
 1 5 10 15
 His Ser Gly Pro Leu Ala Val Leu Ala Gln Val Val Arg Arg Ser Thr
 20 25 30
 Asp Thr Val Tyr Asp Val Val Val Ser Gly Gly Gly Leu Val Gly Ala
 35 40 45
 Ala Met Ala Cys Ala Leu Gly Tyr Asp Ile His Phe His Asp Lys Lys
 50 55 60
 Ile Leu Leu Leu Glu Ala Gly Pro Lys Lys Val Leu Glu Lys Leu Ser
 65 70 75 80
 Glu Thr Tyr Ser Asn Arg Val Ser Ser Ile Ser Pro Gly Ser Ala Thr
 85 90 95
 Leu Leu Ser Ser Phe Gly Ala Trp Asp His Ile Cys Asn Met Arg Tyr
 100 105 110
 Arg Ala Phe Arg Arg Met Gln Val Trp Asp Ala Cys Ser Glu Ala Leu
 115 120 125
 Ile Met Phe Asp Lys Asp Asn Leu Asp Asp Met Gly Tyr Ile Val Glu
 130 135 140
 Asn Asp Val Ile Met His Ala Leu Thr Lys Gln Leu Glu Ala Val Ser
 145 150 155 160
 Asp Arg Val Thr Val Leu Tyr Arg Ser Lys Ala Ile Arg Tyr Thr Trp
 165 170 175
 Pro Cys Pro Phe Pro Met Ala Asp Ser Ser Pro Trp Val His Ile Thr
 180 185 190
 Leu Gly Asp Gly Ser Thr Phe Gln Thr Lys Leu Leu Ile Gly Ala Asp
 195 200 205
 Gly His Asn Ser Gly Val Arg Gln Ala Val Gly Ile Gln Asn Val Ser
 210 215 220
 Trp Asn Tyr Asp Gln Ser Ala Val Val Ala Thr Leu His Leu Ser Glu
 225 230 235 240
 Ala Thr Glu Asn Asn Val Ala Trp Gln Arg Phe Leu Pro Ser Gly Pro
 245 250 255
 Ile Ala Leu Leu Pro Leu Ser Asp Thr Leu Ser Ser Leu Val Trp Ser

260	265	270
Thr Ser His Glu His Ala Ala Glu Leu Val Ser Met Asp Glu Glu Lys		
275	280	285
Phe Val Asp Ala Val Asn Ser Ala Phe Trp Ser Asp Ala Asp His Thr		
290	295	300
Asp Phe Ile Asp Thr Ala Gly Ala Met Leu Gln Tyr Pro Val Ser Leu		
305	310	315
Leu Lys Pro Thr Lys Val Ser Ala Arg Gln Leu Pro Pro Ser Val Pro		
325	330	335
Trp Val Asp Ala Lys Ser Arg Val Leu Phe Pro Leu Gly Leu Gly His		
340	345	350
Ala Ala Glu Tyr Val Arg Pro Arg Val Ala Leu Ile Gly Asp Ala Ala		
355	360	365
His Arg Val His Pro Leu Ala Gly Gln Gly Val Asn Met Gly Phe Gly		
370	375	380
Asp Ile Ser Ser Leu Ala His His Leu Ser Thr Ala Ala Phe Asn Gly		
385	390	395
Lys Asp Leu Gly Ser Val Ser His Leu Thr Gly Tyr Glu Thr Glu Arg		
405	410	415
Gln Arg His Asn Thr Ala Leu Leu Ala Ala Thr Asp Leu Lys Arg		
420	425	430
Leu Tyr Ser Thr Ser Ala Ser Pro Leu Val Leu Leu Arg Thr Trp Gly		
435	440	445
Leu Gln Ala Thr Asn Ala Val Ser Pro Leu Lys Glu Gln Ile Met Ala		
450	455	460
Phe Ala Ser Lys		
465		

<210> 6011

<211> 1331

<212> DNA

<213> Homo sapiens

<400> 6011

```

ngcaggcccg cctaagccaa gggcaaccta ggcattgcgc ttggttttgc tgacttcacg
60
ggtgtgttca gcaaagggtt tcgggaagtg gagcgggttc tacagctgcc caaggaaacg
120
ggtgattctg cacagttcac caaagccatt gccatcatct tccccctttc gtatctgtcg
180
gagaaggttg agtgaccccc cagccaggag cacctgaagc accagaccgt ctaccgcctg
240
ctcaagtgcg cgccccgggg caagaacggc ttcacccttc tgcacatggc tgtggacaag
300
gacaccacaa acgtggggcg ctatcccggt ggcagattcc cctccctgca cgtgggtcaaa
360
gtgctgctcg actgcggggc cgacccggag agcagggtat ttgacaacaa caccocgcta
420
cacatagcag cccagaacaa ctgcccgccc atcatgaatg cctgatcgca agcagggggc
480
cacatggacg ccaccaatgc cttcaagaag acggcctacg agctgtcgga cgagaagctg
540
ctggccaggg gtaccatgca gcccttcaac tacgtgaccc tgcagtgcct tgcggcccg
600

```

gccctggata agaacaagat cccttacaag ggcttcaccc cggaagatct agaggcattc
 660
 atcgaactgc actgacctgc ccagaacatc tgcacctca cctctcccct ctctcgtgta
 720
 gatgggggaa atccggctgg ggtatagcag atgctcgttc ttgcctcctt caggcaccaa
 780
 tcaggagaag ggttctgcct cccatccctt ctacctgcag acagggtcgg aggtgttagc
 840
 gagcctttgg tgctagaagc ctgcggggtc atgtgctaag aggacagtct ttctccggga
 900
 gcccgctcac tcattctgag ttaggaaaag acacaagacc ttcccacat cctgtctgcc
 960
 tgggttaggg aggcctttgc cttgttacct agaggcggag ggactgaagc cattcggttc
 1020
 cttccctgct agaaacacag gaagaagttg aggacggctt gccttccctc gtccctttac
 1080
 ctggccagat aactccagcc gctgaatata gtgttaggac tgggggctcc tgagatgaga
 1140
 gtttgagatt caggaatga gaccacctct catttcttcc agcatgatcg cgcctgttcc
 1200
 cgtgccaccg tagtccctgg caggcaggca gggctctgcc cagggcagcc tgccacttgc
 1260
 atagctttcg gttgggttgg tgttctgttt atttaataag tgggcagggt gcaagcgttg
 1320
 cacagaaatt t
 1331

<210> 6012

<211> 219

<212> PRT

<213> Homo sapiens

<400> 6012

Ala	Lys	Gly	Asn	Leu	Gly	Met	Gln	Leu	Gly	Phe	Ala	Asp	Phe	Met	Gly
1			5						10				15		
Val	Phe	Ser	Lys	Gly	Val	Arg	Glu	Val	Glu	Arg	Val	Leu	Gln	Leu	Pro
			20					25				30			
Lys	Glu	Pro	Gly	Asp	Ser	Ala	Gln	Phe	Thr	Lys	Ala	Ile	Ala	Ile	Ile
		35				40					45				
Phe	Pro	Phe	Leu	Tyr	Leu	Leu	Glu	Lys	Val	Glu	Cys	Thr	Pro	Ser	Gln
		50				55					60				
Glu	His	Leu	Lys	His	Gln	Thr	Val	Tyr	Arg	Leu	Leu	Lys	Cys	Ala	Pro
65					70					75				80	
Arg	Gly	Lys	Asn	Gly	Phe	Thr	Pro	Leu	His	Met	Ala	Val	Asp	Lys	Asp
			85					90					95		
Thr	Thr	Asn	Val	Gly	Arg	Tyr	Pro	Val	Gly	Arg	Phe	Pro	Ser	Leu	His
			100					105					110		
Val	Val	Lys	Val	Leu	Leu	Asp	Cys	Gly	Ala	Asp	Pro	Asp	Ser	Arg	Asp
			115				120					125			
Phe	Asp	Asn	Asn	Thr	Pro	Leu	His	Ile	Ala	Ala	Gln	Asn	Asn	Cys	Pro
			130				135				140				
Ala	Ile	Met	Asn	Ala	Leu	Ile	Glu	Ala	Gly	Ala	His	Met	Asp	Ala	Thr
145					150					155				160	
Asn	Ala	Phe	Lys	Lys	Thr	Ala	Tyr	Glu	Leu	Leu	Asp	Glu	Lys	Leu	Leu

	165		170		175
Ala Arg Gly Thr Met Gln Pro Phe Asn Tyr Val Thr Leu Gln Cys Leu					
	180		185		190
Ala Ala Arg Ala Leu Asp Lys Asn Lys Ile Pro Tyr Lys Gly Phe Ile					
	195		200		205
Pro Glu Asp Leu Glu Ala Phe Ile Glu Leu His					
	210		215		

<210> 6013
 <211> 2204
 <212> DNA
 <213> Homo sapiens

<400> 6013
 acgcgtgaag ggggcggagg tgggtggtgga ggtggcagtg tggctcctaa gccaccacgg
 60
 ggccggaaga agaagcggat gctggaatca gggctgccc agatgaatga cccttatgtc
 120
 ctctccctg aggatgatga tgaccatcag aaagacggcg agacctacag gtgcccggatg
 180
 tgcctactga cattctactc caagtcggag atgcagatcc actccaagat gcacacggag
 240
 accatcaagc cccacaagtgc cccacactgc tccaagacct tcgccaacag ctctctacctg
 300
 gccacgcaca tccgtatcca ctccaggggcc aagccctaca actgtaactt ttgtgagaaa
 360
 tccttcggtc agctctcaca cctccagcag cacacacgaa tccacactgg tgatagacca
 420
 tacaaatgtg cacaccacagg ctgtgagaaa gccttcacac aactctccaa tctgcagtcc
 480
 cacagacggc aacacaacaa agataaacc ttcaagtgc acaactgtca tcgggcgtac
 540
 acggatgcag cctcactaga ggtgcacctg tctacgcaca cagtgaagca tgccaagggtg
 600
 tacacctgca ctatctgcag tcgggcatac acatcagaaa cataccttat gaaacatatg
 660
 cgcaaacaca acccgctga tcttcagcaa cagggtcagg cagcagcagc agcggcagca
 720
 gtggcccagg cccaggctca agctcaagcc caggctcagg ctccaggctca agcccaggcc
 780
 caggcccagg cctcccaggc atcacagcag cagcagcagc agcagcagca gcagcagcag
 840
 cagcaacagc caccaccaca ctccagctct cctggggcag cccccaggg tgggggtggt
 900
 ggggacagca atcccaaccc tccaccccag tgttcctttg acctgacccc gtataagaag
 960
 gcggagcattc ataaggacat ctgcctcact gtcaccacca gcaccatcca ggtggagcac
 1020
 ctggccagct cttagagatc cgtgctgcca cccactggga agagggaagaa gtatgctctg
 1080
 tgtcttcttt ctccaactct tgggtgggaaa agtccctttc ttccttgaca ggccttggt
 1140
 ccattctctt gggcctctgt caggccttct cttcacagga taaccatctt tttctgaact
 1200

cttcttcaaa aggaacatca gccctcctga ttgcaaaagga atactgagct gatgggtgtca
 1260
 tccagcagcc tccctcccca agcaaaagctt ctaaaaactgg gggtcggtgc tcaagggaag
 1320
 gatttgctat gacctcatag aacctgtgcc agtgtggcca cttaccttat ccttaccctc
 1380
 cttactctca aagtttgggc tgatgtaaga ctgagggctg gccctcccga ataacagaga
 1440
 aaaggagacc ccaaagtcaa ccagcctctt gttctattct tgcctgcaaa agaacagagg
 1500
 tttctcaaat gcctcagtc ctgagagcca tttcttcccc tacatcgctt cactttgctt
 1560
 cctattgact gctggtagaa ggagatttgg ggtaggggct agacctcctt ttatttgaag
 1620
 ggggcaaggg ctgagatgtg gtccccaagg ggccagaaat tcccaagttg gtacacggtg
 1680
 gcttagaagt gtgtgttatg gttttacgga tttccttgaa gcctctctcc ttctctgcct
 1740
 acaaagaccc tatactctca gtctcccca cccaccccca aggagctgtg ggagcgcttg
 1800
 tgttatctgt gaaactccaa aacagggggtg ttgcggagaa gggagagtgc aaggcaaacg
 1860
 caaggactgg acttagctcc ctaggtgcca cagtcatgat ccggacacgg atttatatat
 1920
 aaatatatat atataaatat attataccca ctcatcacgg ccattctttgt tgtaaccatt
 1980
 tctgtgttta taaatgcatt atctctgaga attttcatat ttgatgtttt gttttatttt
 2040
 gtctttttt tccctctctc caccctctgc ctctagccac agcatttttc tttttgtctt
 2100
 ttttttttt ttttaaatca tggcagattt cagaggaaag gaaattaaaa aaaaaatcag
 2160
 gaaaccagtt gttataaagt aatttaaaaa tgaagaaaaa aaaa
 2204

<210> 6014

<211> 182

<212> PRT

<213> Homo sapiens

<400> 6014

Arg	Gln	His	Asn	Lys	Asp	Lys	Pro	Phe	Lys	Cys	His	Asn	Cys	His	Arg
1			5						10				15		
Ala	Tyr	Thr	Asp	Ala	Ala	Ser	Leu	Glu	Val	His	Leu	Ser	Thr	His	Thr
		20					25						30		
Val	Lys	His	Ala	Lys	Val	Tyr	Thr	Cys	Thr	Ile	Cys	Ser	Arg	Ala	Tyr
		35					40					45			
Thr	Ser	Glu	Thr	Tyr	Leu	Met	Lys	His	Met	Arg	Lys	His	Asn	Pro	Pro
		50				55					60				
Asp	Leu	Gln	Gln	Gln	Val	Gln	Ala	Ala	Ala	Ala	Ala	Ala	Ala	Val	Ala
		65			70				75					80	
Gln	Ala	Gln	Ala	Gln	Ala	Gln	Ala	Gln	Ala	Gln	Ala	Gln	Ala	Gln	Ala
			85				90						95		
Gln	Ala	Gln	Ala	Gln	Ala	Ser	Gln	Ala	Ser	Gln	Gln	Gln	Gln	Gln	Gln

	100		105		110
Gln	Gln	Gln	Gln	Gln	Gln
	115		120		125
Pro	Gly	Ala	Ala	Pro	Gln
	130		135		140
Pro	Pro	Pro	Gln	Cys	Ser
	145		150		155
His	His	Lys	Asp	Ile	Cys
			165		170
Glu	His	Leu	Ala	Ser	Ser
			180		

<210> 6015

<211> 612

<212> DNA

<213> Homo sapiens

<400> 6015

gccgagtggag aacaagagta cagggactttt acaatttttta ttgattttta ctatatata
 60
 tgcagtaaatg attgaaatga atgactttttt tttaggaaaaa tgttgtaaaa ggcagggcttc
 120
 tgagaatcct gattgaatgg aagtgaagag ccatgagaag ctcgcccagg agagtctaatt
 180
 ttattctgat tacagctcat ggagagtgtg gggcatgtga ggccactcca gctattgtta
 240
 ttcaacttgc atctgccctt getgatcccc tgagaggctg gcagcctctc aggggtcctt
 300
 gggcggttgag cctcctctcg cagcctgcaa gcctttttac ctctttccat cacctgagcc
 360
 tgaaagtgtg cctgcccgac cttgtcctg gccttatttc tcttctctatc ttatctccat
 420
 tccgcaggtg cctcagccat tgctacctt tttgcacaaa attaaaaaga aaagaaaaaa
 480
 gccagtggaga gaacagtcac acgataaagg cacagcacag cagttgggtg tctcttttta
 540
 aacaggaagt agcagtcatt ctatatggat gttcagctag acccagggg ctttaacctt
 600
 acctggcatg gc
 612

<210> 6016

<211> 99

<212> PRT

<213> Homo sapiens

<400> 6016

Met	Glu	Arg	Gly	Lys	Lys	Ala	Cys	Arg	Leu	Arg	Arg	Arg	Ala	His	Arg
	1				5				10					15	
Pro	Arg	Ser	Pro	Glu	Arg	Leu	Pro	Ala	Ser	Gln	Gly	Ile	Ser	Arg	Gly
			20						25				30		
Arg	Cys	Lys	Leu	Asn	Asn	Asn	Ser	Trp	Ser	Gly	Leu	Thr	Cys	Pro	Thr
		35				40						45			
Leu	Ser	Met	Ser	Cys	Asn	Gln	Asn	Lys	Leu	Asp	Ser	Pro	Gly	Arg	Ala

50		55		60
Ser His Gly Ser Ser	Leu Pro Phe Asn Gln Asp	Ser Ser Gln Lys Pro Ala		
65	70	75	80	
Phe Tyr Asn Ile Phe	Leu Lys Lys Ser His Ser	Phe Gln Ser Leu Leu		
	85	90	95	
Gln Tyr Ile				

<210> 6017

<211> 2091

<212> DNA

<213> Homo sapiens

<400> 6017

ccggccaagt ttaacttttc tagtgatgtg ttggatcact gggctgacat ggagaaggct
 60
 ggcaagcgac tccaagccc agccctgttg tgggtgaatg ggaaggggaa ggaattaatg
 120
 tggaatttca gagaactgag tgaaaacagc cagcaggcag ccaacgtcct ctctgggagcc
 180
 tgtggcctgc agcgtgggga tcgtgtggca gtgatgctgc cccgagtgcc tgagtgggtg
 240
 ctgggtgatcc tgggctgcat tcgagcaggc ctcactctta tgccctggaac catccagatg
 300
 aaatccactg acatactgta taggttgtag atgtctaagg ccaaggctat tgtgtctggg
 360
 gatgaagtca tccaagaagt ggacacagtg gcatctgaat gtccttctct gagaattaag
 420
 ctactgggtg ctgagaaaag ctgcgtaggg tggctgaact tcaagaaact actaaatgag
 480
 gcatccacca ctcactactg tgtggagact ggaagccagg aagcatctgc catctacttc
 540
 actagtggga ccagtggctc tccaagatg gcagaacatt cctactcgag cctgggcctc
 600
 aaggccaaga tggatgctgg ttggacaggc ctgcaagcct ctgatataat gtggaccata
 660
 tcagacacag gttggatact gaacatcttg ggctcacttt tggaatcttg gacattagga
 720
 gcatgcacat ttgttcactc cttgccaaa tttgacccac tggttattct aaagacactc
 780
 tccagttatc caatcaagag tatgatgggt gccctctattg ttaccggat gttgctacag
 840
 caggatcttt ccagttacaa gttcccccac ctacagaact gcctcgctgg aggggagtc
 900
 ctctctccag aaactctgga gaactggagg gccagacag gactggacat ccgagaattc
 960
 tatggccaga cagaaacggg attaacttgc atggtttcca agacaatgaa aatcaaacca
 1020
 ggatacatgg gaacgctgc ttctgttat gatgtacagg ttatagatga taagggcaac
 1080
 gtccctgccc ccggcacaga aggagacatt ggcacaggg tcaaacccat caggcctata
 1140
 ggcatcttct ctggctatgt ggaataatccc gacaagacag cagccaacat tcgaggagac
 1200

ttttggctcc ttggagaccg gggaatcaaa gatgaagatg ggtattttcca gtttatggga
 1260
 cgggagatg atatcattaa ctccagcggg taccgattg gaccctcgga ggtagagaat
 1320
 gcactgatga agcaccctgc tgtgggttgg acggctgtga tcagcagccc agaccccgtc
 1380
 cgaggagagg tgggtgaaggc atttgtggtc ctggcctcgc agttcctgtc ccatgaccca
 1440
 gaacagctca ccaaggagct gcagcagcat gtgaagtcag tgacagcccc atacaagtac
 1500
 ccaagaaaga tagagtgtgt cttgaacctg cccaagactg tcacagggaa aattcaacga
 1560
 gccaaagctc gagacaagga gtggaagatg tccggaagc cccgtgcgca gtgagacatc
 1620
 taagagacat tcatttggat tccctctctc tttctcttct ttttcccttt gggcccttgg
 1680
 ccttactatg atgatatgag attctttatg aaagaacatg aatgtaagtt ttgtcttgcc
 1740
 ctggttatta gccttgggta ttagcacaaa actttaccat gtagatggt gaaagaagaa
 1800
 aggggaaggaa tgagagagag tgaaaaggag agggtaacag aaaaaaggaa aagaaaagta
 1860
 agtcagggaa atattaaaac tgcaagggaa agcaattgaa aaagaaataa agtaggggaa
 1920
 gaaggagaga ggaagcaagg gaaggaggaa gaaaggaaag aggagatgaa agggggagaa
 1980
 aagatagaag aaaaataatt gaaggagaa tcagaaaaat aaagagaaga aaggaaagaa
 2040
 ataaagagag aaagagaaag aagaagagc aaaaagaac aagaagaaa g
 2091

<210> 6018

<211> 537

<212> PRT

<213> Homo sapiens

<400> 6018

Pro Ala Lys Phe Asn Phe Ala Ser Asp Val Leu Asp His Trp Ala Asp
 1 5 10 15
 Met Glu Lys Ala Gly Lys Arg Leu Pro Ser Pro Ala Leu Trp Trp Val
 20 25 30
 Asn Gly Lys Lys Lys Glu Leu Met Trp Asn Phe Arg Glu Leu Ser Glu
 35 40 45
 Asn Ser Gln Gln Ala Ala Asn Val Leu Ser Gly Ala Cys Gly Leu Gln
 50 55 60
 Arg Gly Asp Arg Val Ala Val Met Leu Pro Arg Val Pro Glu Trp Trp
 65 70 75 80
 Leu Val Ile Leu Gly Cys Ile Arg Ala Gly Leu Ile Phe Met Pro Gly
 85 90 95
 Thr Ile Gln Met Lys Ser Thr Asp Ile Leu Tyr Arg Leu Gln Met Ser
 100 105 110
 Lys Ala Lys Ala Ile Val Ala Gly Asp Glu Val Ile Gln Glu Val Asp
 115 120 125
 Thr Val Ala Ser Glu Cys Pro Ser Leu Arg Ile Lys Leu Leu Val Ser

130		135		140
Glu Lys Ser Cys Asp Gly Trp Leu Asn Phe Lys Lys Leu Leu Asn Glu				
145	150	155	160	
Ala Ser Thr Thr His His Cys Val Glu Thr Gly Ser Gln Glu Ala Ser				
	165	170	175	
Ala Ile Tyr Phe Thr Ser Gly Thr Ser Gly Leu Pro Lys Met Ala Glu				
	180	185	190	
His Ser Tyr Ser Ser Leu Gly Leu Lys Ala Lys Met Asp Ala Gly Trp				
	195	200	205	
Thr Gly Leu Gln Ala Ser Asp Ile Met Trp Thr Ile Ser Asp Thr Gly				
	210	215	220	
Trp Ile Leu Asn Ile Leu Gly Ser Leu Leu Glu Ser Trp Thr Leu Gly				
	225	230	235	240
Ala Cys Thr Phe Val His Leu Leu Pro Lys Phe Asp Pro Leu Val Ile				
	245	250	255	
Leu Lys Thr Leu Ser Ser Tyr Pro Ile Lys Ser Met Met Gly Ala Pro				
	260	265	270	
Ile Val Tyr Arg Met Leu Leu Gln Gln Asp Leu Ser Ser Tyr Lys Phe				
	275	280	285	
Pro His Leu Gln Asn Cys Leu Ala Gly Gly Glu Ser Leu Leu Pro Glu				
	290	295	300	
Thr Leu Glu Asn Trp Arg Ala Gln Thr Gly Leu Asp Ile Arg Glu Phe				
	305	310	315	320
Tyr Gly Gln Thr Glu Thr Gly Leu Thr Cys Met Val Ser Lys Thr Met				
	325	330	335	
Lys Ile Lys Pro Gly Tyr Met Gly Thr Ala Ala Ser Cys Tyr Asp Val				
	340	345	350	
Gln Val Ile Asp Asp Lys Gly Asn Val Leu Pro Pro Gly Thr Glu Gly				
	355	360	365	
Asp Ile Gly Ile Arg Val Lys Pro Ile Arg Pro Ile Gly Ile Phe Ser				
	370	375	380	
Gly Tyr Val Glu Asn Pro Asp Lys Thr Ala Ala Asn Ile Arg Gly Asp				
	385	390	395	400
Phe Trp Leu Leu Gly Asp Arg Gly Ile Lys Asp Glu Asp Gly Tyr Phe				
	405	410	415	
Gln Phe Met Gly Arg Ala Asp Asp Ile Ile Asn Ser Ser Gly Tyr Arg				
	420	425	430	
Ile Gly Pro Ser Glu Val Glu Asn Ala Leu Met Lys His Pro Ala Val				
	435	440	445	
Val Glu Thr Ala Val Ile Ser Ser Pro Asp Pro Val Arg Gly Glu Val				
	450	455	460	
Val Lys Ala Phe Val Val Leu Ala Ser Gln Phe Leu Ser His Asp Pro				
	465	470	475	480
Glu Gln Leu Thr Lys Glu Leu Gln Gln His Val Lys Ser Val Thr Ala				
	485	490	495	
Pro Tyr Lys Tyr Pro Arg Lys Ile Glu Phe Val Leu Asn Leu Pro Lys				
	500	505	510	
Thr Val Thr Gly Lys Ile Gln Arg Ala Lys Leu Arg Asp Lys Glu Trp				
	515	520	525	
Lys Met Ser Gly Lys Ala Arg Ala Gln				
	530	535		

<210> 6019

<211> 3002

<212> DNA

<213> Homo sapiens

<400> 5019

attccccctcc ttcatggctg catatctggc tagcgtgaag agatagtcac tgagctctgtt
60
taagaacttg gccacgttcg catcgggtctc tcccatctgg acaagaggca ccacacgtct
120
ctcggcccg cggcacacgg ccggcgagaa atgcagcgcc gagctgatct tgctctccga
180
cgggcacgct gctccagagt gggcagggtc gggaggggacc ggtgaggacc tggaggggact
240
tggggaactg gaggacagcg tctgtcaagg caggatgaag gccgtgagtg gttggagctg
300
gctgggtgtac ttgtcgatcc actgctccag ctccaggatg gggccccgct tgaactgggt
360
atactttaag tgagcctccc gggccgagga gcattggtgc gccaggggcg agccgcagctc
420
ctgcaatgtg cactggattt tctgaagctc ttcggcaaat gtatggccct tttctgtgac
480
taattccaga gcaaacccaa tagctgaact taattcatct gtatgtccca cagcctctcct
540
cgaagacacc caggatcccc aagatttaca ccaaaacggg agacaaaggg tttcttagta
600
ccttcacagg agaaaggaga cccaagatg accaagtgtt tgaagccgtg ggaactacag
660
atgaattaag ttcagctatt ggggttggctc tggaaattag cacagaaaag ggccatacat
720
ttgccgaaga gcttcagaaa atccagtgcga cattgcagga cgtcggctcg gccctggcga
780
caccatgctc ctccggcccg gaggtcact taaagtatac cacgttcaag gcggggccca
840
tccctggagct ggagcagtgg atcgacaagt acaccagcca gctcccacca ctacaggcct
900
tcatcctgcc ttcgggaggc aagatcagct cggcgctgca tttctgccgg gccgtgtgcc
960
gccggggcga gagacgtgtg gtgcctcttg tccagatggg agagaccgat gcgaactgtg
1020
ccaagtcttt aaacagactc agtgactatc tcttcacgct agccagatat gcagccatga
1080
aggaggggaa tcaagagaaa atatacaaga aaaatgaccc atcggccgag tctgaggagac
1140
tctgaaatca cagaaagtgg gagcttggag gatccctcca tggcgatggc cgtggagaga
1200
ggagcttgcc cttctggggc cctgggttct gaagagctca cccagagagg ctcaaagcag
1260
ccttttgtcc cagctcagct ttgactctaca cctcttgcca ccttctctaa gggactgtga
1320
ccccttgggg attctgtccc tgaccctgct tcccacagct ctccctgggtc ttggagggat
1380
gtgggaatga attggcattg caggaaaagc aggtaaagtg attgctgcaa tgagaaggag
1440
ctgtggggaa aaggataaaa agttggaagc cccggaccac tggaaacctg aaccaccag
1500

ctggctgtac ccggagccgt ggcagcagcc ctcaccccca tggcggccat cccagccctg
1560
gacccagagg ccgagcccag catggacgtg attttgggtg gatccagtga gctctcaagg
1620
tccgtttcac ccgggacagg cagagatctt attgcatatg aagtcaagg taaccagcga
1680
aatatagaag acatctgcat ctgctgcgga agtctccagg ttcacacaca gcaccctctg
1740
tttgaggagg gcatctgcgc cccatgtaag gacaagttcc tggatgccct ctctctgtac
1800
gacgatgacg ggtaccaatc ctactgctcc atctgtctgt ccggagagag gctgctcacc
1860
tgcggaaacc ctgattgcac ccgatgctac tgcttcgagt gtgtggatag cctgtgcggc
1920
cccgggacct cggggaagg gacgcccacg agcaactggg tgtgctacct gtgcctgccg
1980
tcctccgaa gcgggctgct gcagcgtcgg aggaagtggc gcagccagct caaggccctc
2040
tacgaccgag agtcggagaa tccccttgag atgttcgaaa ccgtgcctgt gtggaggaga
2100
cagccagtc cgggtgctgc ctttttgaa gacatcaaga aagagctgac gaggttgggc
2160
tttttgaaa gtggttctga ccggggacaa ctgaagcatg tggttgatgt cacagacaca
2220
gtgagggaag atgtggagga gtggggaccc ttcgatcttg tgtacggcgc cacagctccc
2280
ctgggccaca cctgtgaccg tcctcccagc tggtagctgt tccagttcca ccggttccctg
2340
cagtagcgac ggcccaagcc aggcagcccc aggccttctc tctggatgtt cgtggacaat
2400
ctggtgctga acaaggaaga cctggacgtc gcattctcgt tcctggagat ggagccagtc
2460
accatcccag atgtccacgg cggatccttg cagaatgctg tccgcgtgtg gagcaacatc
2520
ccagccataa ggagcagcag gcaactgggt ctggtttcgg aagaagaatt gtcctctgtg
2580
gccacagaac agcagagctc gaagctcgcg gccaaaggc ccaccaagct ggtgaagaac
2640
tgctttctcc cctaagaga atatttcaag tatttttcaa cagaactcac ttcctcttta
2700
taaatgagtc actatactgt gaagaaaaag acttttcta gaacaaaggc aactttcttc
2760
acgtttgtctc ttctctcttc ggattcttgt ttttttgcgt ctccgtcgtc actgcagacc
2820
cacgttccgt tgggttctgg agactcaggg tctctcccc atcacgttg ctcactggac
2880
ggggcgaggc ccacgccgct gcacacagga ccacacgtgg tggtcgcga tgaactctc
2940
gaaagcattt ctgtgttcta gttgagaagt tcgagtatat ttattataag atagttattg
3000
gt
3002

<210> 6020

<211> 387

<212> PRT

<213> Homo sapiens

<400> 6020

```

Met Ala Ala Ile Pro Ala Leu Asp Pro Glu Ala Glu Pro Ser Met Asp
1      5      10      15
Val Ile Leu Val Gly Ser Ser Glu Leu Ser Ser Ser Val Ser Pro Gly
20
Thr Gly Arg Asp Leu Ile Ala Tyr Glu Val Lys Ala Asn Gln Arg Asn
35      40      45
Ile Glu Asp Ile Cys Ile Cys Cys Gly Ser Leu Gln Val His Thr Gln
50      55      60
His Pro Leu Phe Glu Gly Gly Ile Cys Ala Pro Cys Lys Asp Lys Phe
65      70      75      80
Leu Asp Ala Leu Phe Leu Tyr Asp Asp Asp Gly Tyr Gln Ser Tyr Cys
85      90      95
Ser Ile Cys Cys Ser Gly Glu Thr Leu Leu Ile Cys Gly Asn Pro Asp
100     105     110
Cys Thr Arg Cys Tyr Cys Phe Glu Cys Val Asp Ser Leu Val Gly Pro
115     120     125
Gly Thr Ser Gly Lys Val His Ala Met Ser Asn Trp Val Cys Tyr Leu
130     135     140
Cys Leu Pro Ser Ser Arg Ser Gly Leu Leu Gln Arg Arg Arg Lys Trp
145     150     155     160
Arg Ser Gln Leu Lys Ala Phe Tyr Asp Arg Glu Ser Glu Asn Pro Leu
165     170     175
Glu Met Phe Glu Thr Val Pro Val Trp Arg Arg Gln Pro Val Arg Val
180     185     190
Leu Ser Leu Phe Glu Asp Ile Lys Lys Glu Leu Thr Ser Leu Gly Phe
195     200
Leu Glu Ser Gly Ser Asp Pro Gly Gln Leu Lys His Val Val Asp Val
210     215     220
Thr Asp Thr Val Arg Lys Asp Val Glu Glu Trp Gly Pro Phe Asp Leu
225     230     235     240
Val Tyr Gly Ala Thr Ala Pro Leu Gly His Thr Cys Asp Arg Pro Pro
245     250     255
Ser Trp Tyr Leu Phe Gln Phe His Arg Phe Leu Gln Tyr Ala Arg Pro
260     265     270
Lys Pro Gly Ser Pro Arg Pro Phe Phe Trp Met Phe Val Asp Asn Leu
275     280     285
Val Leu Asn Lys Glu Asp Leu Asp Val Ala Ser Arg Phe Leu Glu Met
290     295     300
Glu Pro Val Thr Ile Pro Asp Val His Gly Gly Ser Leu Gln Asn Ala
305     310     315     320
Val Arg Val Trp Ser Asn Ile Pro Ala Ile Arg Ser Ser Arg His Trp
325     330     335
Ala Leu Val Ser Glu Glu Glu Leu Ser Leu Leu Ala Gln Asn Lys Gln
340     345     350
Ser Ser Lys Leu Ala Ala Lys Trp Pro Thr Lys Leu Val Lys Asn Cys
355     360     365
Phe Leu Pro Leu Arg Glu Tyr Phe Lys Tyr Phe Ser Thr Glu Leu Thr
370     375     380
Ser Ser Leu

```

385

<210> 6021

<211> 3145

<212> DNA

<213> Homo sapiens

<400> 6021

nactcttgag gacaaggacc ttctctggac acagatatgc ctacagagtaa ctgttgcata
60
gcatttcagac actgctggtt gaattgtcca ttacttggc atgcaacaca tggcaaaagta
120
aagggggaag gagattttct gctgcatgtg gctttaacca agagagcaga tccagctgag
180
cttagaaca ttttttgaa gtatgcaagc attgagaaaa acggtgaatt ttctatgtcc
240
cccaatgact ttgtcactcg atacttgaac attttggag aaagccagcc taatccaaag
300
actgtggaac ttttaagtgg agtgggtggat cagaccaaa atggattaat atcttttcaa
360
gaattgttg cctttgaatc tgtcctgtgt gccctgatg ctttgtttat ggtagccttt
420
cagctgtttg acaaagctgg caaaggagaa gtaacttttg aggatgttaa gcaagttttt
480
ggacagacca caattcatca acatattcca ttttaactggg attcagaatt tgtgcaacta
540
cattttggaa aagaaagaaa aagacacctg acatatgctg aatttactca gtttttattg
600
gaaatataac tggagcacgc aaagcaagcc ttgtgcaac gggacaatgc taggactggg
660
agagtcacag ccatacgaact ccgagacatc atgggtcaaca tccgccccca tgtcttgact
720
cctttttag aagaatgtct agtagctgct gctggaggta ccacatccca tcaagttagt
780
ttctcctatt ttaattggatt taattcgctc cttacaaca tggaaactcat tagaaagatc
840
tatagcactc tggctggc acggaagat gttgaagtga ctaaggagga gtttgtctg
900
gcagctcaga aatttggta ggttacccc atggaagtgt acatcttgtt tcagtttagca
960
gatttatatg agccaagggg acgtatgacc ttagcagaca ttgaacggat tgcctctctg
1020
gaagaggga ctctgccctt taacttggct gagggccaga ggcagcagaa ggcctcagg
1080
gattcagctc gaccagttct tctacaagtt gcagagtcgg cctacagggt tggctctggg
1140
tctgttctg gagctgttgg agccactgct gtgtatccca tcgatcttgt aaaaactcga
1200
atgcagaacc aacgatcaac tggctctttt gtgggagaac tcagtgtataa aaacagcttt
1260
gactgtttta agaaagtgtc acgctatgaa ggcttctttg gactgtatag aggtctgttg
1320
ccacagttat tgggagttgc cccagagaag gccataaac ttacagttaa cgattttgtg
1380

agggataaat ttatgcacaa agatgggtcg gtccacttg cagcagaaat tcttgcgtga
1440
ggctgcgctg gaggctccca ggtgatcttc acaaatcctt tagaaatcgt caagatccgt
1500
ttgcaaagtgg caggagaaat caccactggg cctcgagtca gtgctctgtc tgcgtgcgg
1560
gacctggggg tttttgggat ctacaagggt gccaaagcat gctttctgcg ggacattcct
1620
ttctcgccca tctactttcc gtgctatgct catgtgaagg ctctcttgcg aaatgaagat
1680
gggcagggtt gcccggaag cctgctctta gctggtgcca tagctggtat gcctcgacga
1740
tctttagtga cccctgctga tgttatcaag acgagattac aggtggctgc cggggctggc
1800
caaaccactt acagcggagt gatagactgc tttagaaga tactgcgtga agaaggacca
1860
aaagctctgt ggaagggagc tgggtgctgt gtatttcgat cctcacccca gtttggtgta
1920
actttgctga cttacgaatt gctacagcga tggttctaca ttgatttttg aggagtaaaa
1980
cccattggat cagagccagt tcctaatacc aggatcaacc tgcctgcccc gaatcctgat
2040
cacgttgggg gctacaaact ggcagttgct acatttgcag ggattgaaaa caaatttgga
2100
ctttacctac ctctcttcaa gccatcagta tctacctcaa aggtatttgg tggaggccca
2160
taggaagatc agccctggga tagtgctgtc tttttgtggg tactgcagta aagaacatcc
2220
ctctgggaa tgaagcaatg cttcatccct tttacgtcca tctctgtttt aaattcaagt
2280
ccaggctttt ttatcatgtg aaatcattca tttctgggt gttttcttaa ccagatcatt
2340
gtgaaattat tcataattat tatttggccc tctgccaga aacctttgtt tgcattcgaa
2400
aattgatggg atttgggtcaa cactaacatg atttggggaa aggagcaagt cagaatagaa
2460
attagtactc cctccttga actaggattg tagtcccaaa gaggctactg taaggcaatc
2520
atggtgctca gagcagtgtt tctgtgtgtt tttaaactgg taggaaacta ggtgcattat
2580
tataaaaata aaaaacactg ggagaaatga aaaaatatat atcaaatata ttacgcctgg
2640
cttcaaatg taagcatgca caaattctgt ctctggatta tattatgaag cttttatgtg
2700
aaacatgttt ctttgtaatg aaaaccacat tggagatgtt tagtaatcat attgttactg
2760
gtaccaagac tactagggaa atgcctttgt actttaggga agtacttttg gcattttact
2820
gtacagacag aaaaaactga gatgtagccc ctctcctgga agtgctaatt ttgaaaaact
2880
gctcatatga tgtacatgta ctgattactg cctattttaa taaacactct tgaaaaatgc
2940
atgttgccct gttgctgcct gccctattct cctcatctcc ccatcattgg taccacttg
3000

cttttaaaat ccactttatc ttgaataatg taagacaaat atgttctgac ataagttatt
 3060
 aattcatgtt gccctgcata atggctcagag gcgcataaat ttgtgaaggt ggaataaaac
 3120
 tattttgtaa gtgaaaaaaa aaaaa
 3145

<210> 6022
 <211> 708
 <212> PRT
 <213> Homo sapiens

<400> 6022
 Met Pro Gln Ser Asn Cys Cys Ile Ala Phe Arg His Cys Trp Leu Asn
 1 5 10 15
 Cys Pro Phe Thr Trp His Ala Thr His Gly Lys Val Lys Gly Glu Gly
 20 25 30
 Asp Phe Leu Leu His Val Ala Leu Thr Lys Arg Ala Asp Pro Ala Glu
 35 40 45
 Leu Arg Thr Ile Phe Leu Lys Tyr Ala Ser Ile Glu Lys Asn Gly Glu
 50 55 60
 Phe Phe Met Ser Pro Asn Asp Phe Val Thr Arg Tyr Leu Asn Ile Phe
 65 70 75 80
 Gly Glu Ser Gln Pro Asn Pro Lys Thr Val Glu Leu Leu Ser Gly Val
 85 90 95
 Val Asp Gln Thr Lys Asp Gly Leu Ile Ser Phe Gln Glu Phe Val Ala
 100 105 110
 Phe Glu Ser Val Leu Cys Ala Pro Asp Ala Leu Phe Met Val Ala Phe
 115 120 125
 Gln Leu Phe Asp Lys Ala Gly Lys Gly Glu Val Thr Phe Glu Asp Val
 130 135 140
 Lys Gln Val Phe Gly Gln Thr Thr Ile His Gln His Ile Pro Phe Asn
 145 150 155 160
 Trp Asp Ser Glu Phe Val Gln Leu His Phe Gly Lys Glu Arg Lys Arg
 165 170 175
 His Leu Thr Tyr Ala Glu Phe Thr Gln Phe Leu Leu Glu Ile Gln Leu
 180 185 190
 Glu His Ala Lys Gln Ala Phe Val Gln Arg Asp Asn Ala Arg Thr Gly
 195 200 205
 Arg Val Thr Ala Ile Asp Phe Arg Asp Ile Met Val Thr Ile Arg Pro
 210 215 220
 His Val Leu Thr Pro Phe Val Glu Glu Cys Leu Val Ala Ala Ala Gly
 225 230 235 240
 Gly Thr Thr Ser His Gln Val Ser Phe Ser Tyr Phe Asn Gly Phe Asn
 245 250 255
 Ser Leu Leu Asn Asn Met Glu Leu Ile Arg Lys Ile Tyr Ser Thr Leu
 260 265 270
 Ala Gly Thr Arg Lys Asp Val Glu Val Thr Lys Glu Glu Phe Val Leu
 275 280 285
 Ala Ala Gln Lys Phe Gly Gln Val Thr Pro Met Glu Val Asp Ile Leu
 290 295 300
 Phe Gln Leu Ala Asp Leu Tyr Glu Pro Arg Gly Arg Met Thr Leu Ala
 305 310 315 320
 Asp Ile Glu Arg Ile Ala Pro Leu Glu Glu Gly Thr Leu Pro Phe Asn

325 330 335
 Leu Ala Glu Ala Gln Arg Gln Gln Lys Ala Ser Gly Asp Ser Ala Arg
 340 345 350
 Pro Val Leu Leu Gln Val Ala Glu Ser Ala Tyr Arg Phe Gly Leu Gly
 355 360 365
 Ser Val Ala Gly Ala Val Gly Ala Thr Ala Val Tyr Pro Ile Asp Leu
 370 375 380
 Val Lys Thr Arg Met Gln Asn Gln Arg Ser Thr Gly Ser Phe Val Gly
 385 390 395 400
 Glu Leu Met Tyr Lys Asn Ser Phe Asp Cys Phe Lys Lys Val Leu Arg
 405 410 415
 Tyr Glu Gly Phe Phe Gly Leu Tyr Arg Gly Leu Leu Pro Gln Leu Leu
 420 425 430
 Gly Val Ala Pro Glu Lys Ala Ile Lys Leu Thr Val Asn Asp Phe Val
 435 440 445
 Arg Asp Lys Phe Met His Lys Asp Gly Ser Val Pro Leu Ala Ala Glu
 450 455 460
 Ile Leu Ala Gly Gly Cys Ala Gly Gly Ser Gln Val Ile Phe Thr Asn
 465 470 475 480
 Pro Leu Glu Ile Val Lys Ile Arg Leu Gln Val Ala Gly Glu Ile Thr
 485 490 495
 Thr Gly Pro Arg Val Ser Ala Leu Ser Val Val Arg Asp Leu Gly Phe
 500 505 510
 Phe Gly Ile Tyr Lys Gly Ala Lys Ala Cys Phe Leu Arg Asp Ile Pro
 515 520 525
 Phe Ser Ala Ile Tyr Phe Pro Cys Tyr Ala His Val Lys Ala Ser Phe
 530 535 540
 Ala Asn Glu Asp Gly Gln Val Ser Pro Gly Ser Leu Leu Leu Ala Gly
 545 550 555 560
 Ala Ile Ala Gly Met Pro Ala Ala Ser Leu Val Thr Pro Ala Asp Val
 565 570 575
 Ile Lys Thr Arg Leu Gln Val Ala Ala Arg Ala Gly Gln Thr Thr Tyr
 580 585 590
 Ser Gly Val Ile Asp Cys Phe Arg Lys Ile Leu Arg Glu Glu Gly Pro
 595 600 605
 Lys Ala Leu Trp Lys Gly Ala Gly Ala Arg Val Phe Arg Ser Ser Pro
 610 615 620
 Gln Phe Gly Val Thr Leu Leu Thr Tyr Glu Leu Leu Gln Arg Trp Phe
 625 630 635 640
 Tyr Ile Asp Phe Gly Gly Val Lys Pro Met Gly Ser Glu Pro Val Pro
 645 650 655
 Lys Ser Arg Ile Asn Leu Pro Ala Pro Asp His Val Gly Gly
 660 665 670
 Tyr Lys Leu Ala Val Ala Thr Phe Ala Gly Ile Glu Asn Lys Phe Gly
 675 680 685
 Leu Tyr Leu Pro Leu Phe Lys Pro Ser Val Ser Thr Ser Lys Ala Ile
 690 695 700
 Gly Gly Gly Pro
 705

<210> 6023

<211> 1014

<212> DNA

<213> Homo sapiens

```

<400> 6023
tttttaaaaa agaagacat agagccttta ttaaactggt tctgaggtat gtgggactag
60
cctggcctggc tgaccaggct tcttaagccc cacaggcctc tttcacagaa agggagtttg
120
gatcaacaag accatgtaca aaagggggat aatataccta cgtgaggagc caagtttcca
180
tgttgatggt aaatggaaaa acttttgagt cagagctgag ctctgggaca aaaaggaaaa
240
agaagaggga tgaagggaag gggcccaatt cctcttgact gattctaaag ctcatagggg
300
gattccaact cacagctagc cctctgtact aaggaaccag acgaatcttg acctcccagg
360
gaacctagac ctgggaaggc tgaacttgct atttgagggg caagtctact ccctgaagg
420
ggagtgtcgg atattttgat ggggacaagg agggacaata gatcaacctc agcaaaggct
480
ggtaagcctg ggcaagggtc cacagggatg gatcttccta aggggtgggg gggcttccca
540
gttccctagaa aatggcgggtg cgcgcagact gcctccctcc tcttcattgt agcttgatcc
600
tgcgcagtg a cgttcacgg aaagagtcag gcctgggagg ggcgggaccg gggcacaaat
660
gctggaggtt tcagagatgg ctggcgctgg cgaaggcagg tctgccagt acgtattttg
720
ccgtgggtc ctgggctctt tcgtggcacg cagggcactc tccttctcgg gatgggagaa
780
tggaattctt ctaggcgagg acgggcagca gcggccctg gaaggcttcc gtggaaactt
840
ccaaaaccac cttgccaggt aagtgaagt gcgtccgtt ctctagccac atctcaggcc
900
aagtaagttc ttcttcattc ttctcagct cctgatcttc ttggggagca cccctaaatc
960
agcctgtcaa gaagggaagg aggctacggg tatcttctca ggaacagatg aagg
1014

```

```

<210> 6024
<211> 100
<212> PRT
<213> Homo sapiens

```

```

<400> 6024
Met Lys Arg Arg Glu Ala Val Cys Ala His Arg His Phe Leu Gly Thr
1 5 10 15
Gly Lys Pro Pro His Pro Leu Gly Arg Ser Ile Pro Val Glu Pro Cys
20 25 30
Pro Gly Leu Pro Ala Phe Ala Glu Val Asp Leu Leu Ser Leu Leu Val
35 40 45
Pro Ile Lys Ile Ser Ser Thr Pro Pro Ser Gly Ser Arg Leu Asp Pro
50 55 60
Gln Ile Ala Ser Ser Ala Phe Pro Gly Leu Gly Ser Leu Gly Gly Gln
65 70 75 80
Asp Ser Ser Gly Ser Leu Val Gln Arg Ala Ser Cys Glu Leu Glu Ser

```

```

      85                               90                               95
Pro Tyr Glu Leu
      100

<210> 6025
<211> 5905
<212> DNA
<213> Homo sapiens

<400> 6025
nacaggggtgt ggatatacag gctgggaggg tctgtgggca gcagccgagg cccaggttgg
60
gggagccctca cctaggatga ggctagggct ggcagaagat cccacacagag gagccaggag
120
gacccacacag tcaactctagc tcccagggcc tggagggtgca ggcgagcccc gtggtctccg
180
ggcagccggc cctgccccac tcacctctcc tgcctctccc gctgcaggct aaccttgccg
240
cgggcccagc cctgcctcgc catggaccag gactatgagc ggcgcctgct togccagatc
300
gtcatccaga atgagaacac gatgccacgc gtcacagaga tgcggcggac cctgagccct
360
ggcagctccc cagtgtctct gccacgaag cacggagacc gcttcatccc ctccagagcc
420
ggagccaact ggagcgtgaa ctccacagg attaacgaga atgagaagtc tcccagtcag
480
aacgggaag ccaaggacgc cacctcagac aacggcaaag acggcctggc ctactctgcc
540
ctgctcaaga atgagctgct gggtgccggc atcgagaagg tgcaggaccc gcagactgag
600
gaccgcaggc tgcagccctc cagcctgag aagaagggtc tgttcacgta ttcccttagc
660
accaagcgct ccagccccga tgacggcaac gatgtgtctc cttactccct gtctcccgct
720
agcaacaaga gccagaagct gctccgggtc ccccggaac ccaccgcaa gatctccaag
780
atccccctca aggtgctgga cgcgcccgag ctgcaggagc actctacct caatctgggtg
840
gactggtcgt cctccaatgt gctcagcgtg gggctaggca cctgcgtgta cctgtggagt
900
gcctgtacca gccagggtgac gcggctctgt gacctctcag tggaaaggga ctcagtgacc
960
tccgtgggct ggtctgagcg ggggaacctg gtggcgggtg gcacacacaa gggcttcgtg
1020
cagatctggg acgcagccgc agggaagaag ctgtccatgt tggagggcca cagggcacgc
1080
gtcggggcgc tggcctggaa tctgagcag ctgtcgtccg ggagccgcga ccgcatgac
1140
ctgcagaggg acatccgcac ccgccactg cagtccggagc ggcggctgca gggccaccgg
1200
caggaggtgt gcgggtcaa gtggtccaca gaccaccagc tcctcgctc ggggggcaac
1260
gacacaagc tgctggtctg gaatcactcg agcctgagcc ccgtgcagca gtacacggag
1320

```

cacctggcgg ccgtgaaggc catcgcctgg tccccacatc agcacgggct gctggcctcg
1380
ggggggcgga cagctgaccg ctgtatccg tcttggaaca cgctgacagg acaaccactg
1440
cagtgatcgc acacgggctc ccaagtgtgc aatctggcct ggtccaagca cgccaacgag
1500
ctggtagaga cgcacggcta ctacagaaac cagatccttg tctggaagta cccctccctg
1560
accaggtgg ccaagctgac cgggcactcc taccgctgc tgtacctggc aatgtccctt
1620
gatggggagg ccatcgtcac tgggtgctga gacgagaccg tgagggtctg gaacgtcttt
1680
agcaaaaccc gttcgacaaa ggtaaagtgg gagtctgtgt ctgtgtcaa cctcttcacc
1740
aggatccggc aaacctgccg ggcaggaccg tggcacacca gctgtccaga gtcggaggac
1800
cccagctcct cagcttgcat ggaactctgc tccccacgc ttgtcccccg aggaaggcgg
1860
ctgggcgggc ggggagctgg gcctggagga tcttggaatc tcattaaatg cctgattgtg
1920
aaccatgtcc accagtatct ggggtgggca cgtggtcggg gacctctcag agrcggggct
1980
ctgtctcctt tcccaaaggc cgagaaccac attggaaggc ccgggtcag accgtctgta
2040
ctcagagcga cggatgcccc ctgggaccct cactgcctcc gtctgttcac caacctgcca
2100
ccggagccgc atgctcttcc tggaaactgc cagctctgca cagaacagac caccagacgc
2160
cagggctgat tggtaggggc ctgagacccc cggttgccca ttcattggctg caccacca
2220
tgtcaaaccc aagaccagcc ccaaggccag accaaggcat gtaggcctgg gcagggtggc
2280
cggggccact ggcggagcca gcttgtggat ccaagagaca gtccccacct gggcttcacg
2340
gcatccttgc agccacctct gctgtcactg ctggaagcag cagtctctct gcaagcatct
2400
gtgtcatggc catcgcccg cggtcagtgg gcttcagatg ggctgtgca tccctggcca
2460
gcgtcaccct cacactggag gaggatgtct gctctggact tatcacccca ggagaactga
2520
accgggacct gctcactgcc ctggctggag aggagacaaa cagatgccac gtcttcgtgc
2580
attcgccaac acgtgcccct acagggccag cgtcctcctt cctgogcaa gacttgctc
2640
ccccatgct gctgggtggc tgggtcctgt ggaggccagc agcgggtgtg ccccccccc
2700
caggctgcct gtgtcttca cctgctgtgc caccagcgcc aacagccgtg gggaagccaa
2760
ggagacccaa ggggtccagg aggtgggcgc cctccatcct tcgagaagct tcccaggctc
2820
ctctgcttct ctgtctcatg ctcccaggct gcacagcagg caggaggagg ggcaaggcag
2880
gggagtgagg cctgagctga gcaactgccc ctaccccc caccacccct tccatttca
2940

tccgtgggga cgtgggagag gtggggcggg ctgggggtgg aggggtccac ccaccaccc
3000
gctgtgcttg ggaaccccca ctccccactc cccacatccc aacatcctgg tgtctgtccc
3060
cagtgggggt ggctgcatg tgtacatatg tatttgtgac ttttctttgg atttgttttg
3120
tgtttttggg gactagtccg ggaatatgtt gaggctagac ggggaggggc caggaccac
3180
ccactgctcc tgggggatga ggtcctgggt ttaaagcccc gtcatttcaa cggggtcgat
3240
ctccacatt cactggagag actctcccca cctctgtctg ggtggggcgc ggacccctca
3300
ctgtgcgcct gtgcaggggg tgctgggtgca cgtggcagtg tggatttcca gtggtcacgg
3360
tcttactgtt tcaagggttt taaataagaa aaccaaccct gccttcgccc atgcccgccc
3420
ctgcccgag ttgccaaaga gccgccttgt cgctgtgggc gtcagggcct ggctggctca
3480
gtgcacaacc cacagtggcc ttcagaggct cctcctggga ctgggaaccg ccgcagggcc
3540
aggcggaagg cgtgaggttt gtgttggggc tggttctgcc catgctaggg ggtgggggag
3600
ctccaggac agaccagcct tgtttctcat gtaatgcagt gacgtgtca ttaaacagct
3660
ggattcatgt gtggccggga ctggctggct ctaggctccc ggcctgggtg ggttcacag
3720
gtcctgcctc agagccccc tctggccctg gagctgcaga agcagcttct gaggggcttc
3780
ccaggcctgc atttcacaga tggggagctc agccctcgaa gccgcagag acgcctccca
3840
ggcccgtctg ccagggcgcc ggcacaatc ctgcagggcc aaggactgga ctccaggcaa
3900
gtccctgcgc tccagctgga cggccctgtt ccagggagga ggtgctcggg tgacaccatc
3960
agggagggag ggtgggcact gctgggctga gttcaccccc agggctggcc agatggggcc
4020
aggagggaca gagcaagggg ggtgaaggcc gtggtggggg ggtcccatga tgatggggca
4080
gggctcgtgt agaaatgggg gaattgggtc cccatggccc aggacagctg agaggaggtg
4140
gagggggccc agggagtggt acgtcaggct ttgcggggca cgggggccac tcagcagcgc
4200
tggggcaggt gcctctgctg tcagctccac ccgacaggca gacgaaggcc agtggggcca
4260
tcgcttccgt gggcgaccct ggagtggtt gggagacgca ccagtgaggg gggaggctga
4320
ccaagggcc ccgagggcgg gctgcaactt ttctgttgat cctggaatgt agctggtgca
4380
gtgagaggga aagagaattg aaaaactcag gctgccatag gttctcgat gagagggtga
4440
ggaggcagga gcctggccca gggggtgctg gtgcctcccc ggggtctggg ccgagagaac
4500
aggaggaaat gctgggaagt ggctgaggga gccaggaggc cggggggccg ggggctgcag
4560

gggaggctgt ggggggtcctg gcagccaggga gggcccagggt ggttttgagg ctgcctcttg
4620
cgcggtgcct gagaagaggg tgaaggagct ggggcaggcc ccacctctgg cattggagat
4680
gatgaaaccg agcagacctg gcccatgttg agctggcatg ggggacacag cccagagaca
4740
gagaagctta tgagggaagt aggagggtggc gtcacaaggg tggggagggg gccttgggga
4800
aggcgggcct tggatcagag gctcaccaca agcctggcat ttcagccagg gctggagaag
4860
gcagggacgc ctgggtgaga ggcaagggc acagccatgc aaaggccctg gggcaggagc
4920
gcacctggta tgcgggaggga acagagtga gaggaggagg cagggcgtgc agggccttgc
4980
gggcctcagg gaggacttgg gcacctaccc caggggagtg gaggctcctg gtgcgtgtcc
5040
agatgggaaa ggcaggggtcg tatctgtggg gacctgacaa gggcagggga agcggagacc
5100
agggtgcagg ctccgcccc acccaaggcc gggcccagcc agaggagggg caggggcagg
5160
caggagggtt ctggatgttt gttgggtttt gtttggtttt gttttgtttt gtttattgtg
5220
gtaaaaataca aaatctaccg tcttacagt aggtggcggt cagtaccttc accacgcgct
5280
gcagccatcc catctgattc cagaacattc tcataccca gaaggcagcc ctgtcccatc
5340
tatgtcaact agtcaccccc aggtccccc cccagtcacc ggacccaacg aatcctctcc
5400
ctgattctgt ggattgggtc gtccctggaca tttcatagaa gtgggatcac agcgctaccct
5460
tctgtgtctg gtgtctctca ctgagcgtga catcctcaag gtgcattccg actgtggcct
5520
gggtcagagc ttccgacctc cttgtggctg agtctcatte cagcgctgg gtgcgtgggt
5580
ggcgcgccg tgctgatccc ctacacctca ctgggtgttc ggtgttctcc gcctcgggct
5640
gtcacaatac gtgctgctgt gagccactgc gtgcagggtc catcctgggt gtattttaca
5700
aacggactgg atgtgagtgg gtgaggagtg aggagctggg gtgacaggtg cctgcgaccc
5760
cgccaggga ctgcctcctg cgategaagg ggcaggggga gacagaagcc cctcaagggg
5820
gtgtggagat ggagaagcca gaccccagg ggggggtgca tagagctggg gctcaggcca
5880
cgacccacc tggcagtgcc ctgcc
5905

<210> 6026

<211> 496

<212> PRT

<213> Homo sapiens

<400> 6026

Met Asp Gln Asp Tyr Glu Arg Arg Leu Leu Arg Gln Ile Val Ile Gln

1	5	10	15
Asn Glu Asn Thr Met Pro Arg Val Thr Glu Met Arg Arg Thr Leu Thr			
20	25	30	
Pro Ala Ser Ser Pro Val Ser Ser Lys His Gly Asp Arg Phe			
35	40	45	
Ile Pro Ser Arg Ala Gly Ala Asn Trp Ser Val Asn Phe His Arg Ile			
50	55	60	
Asn Glu Asn Glu Lys Ser Pro Ser Gln Asn Arg Lys Ala Lys Asp Ala			
65	70	75	80
Thr Ser Asp Asn Gly Lys Asp Gly Leu Ala Tyr Ser Ala Leu Leu Lys			
85	90	95	
Asn Glu Leu Leu Gly Ala Gly Ile Glu Lys Val Gln Asp Pro Gln Thr			
100	105	110	
Glu Asp Arg Arg Leu Gln Pro Ser Thr Pro Glu Lys Lys Gly Leu Phe			
115	120	125	
Thr Tyr Ser Leu Ser Thr Lys Arg Ser Ser Pro Asp Asp Gly Asn Asp			
130	135	140	
Val Ser Pro Tyr Ser Leu Ser Pro Val Ser Asn Lys Ser Gln Lys Leu			
145	150	155	160
Leu Arg Ser Pro Arg Lys Pro Thr Arg Lys Ile Ser Lys Ile Pro Phe			
165	170	175	
Lys Val Leu Asp Ala Pro Glu Leu Gln Asp Asp Phe Tyr Leu Asn Leu			
180	185	190	
Val Asp Trp Ser Ser Leu Asn Val Leu Ser Val Gly Leu Gly Thr Cys			
195	200	205	
Val Tyr Leu Trp Ser Ala Cys Thr Ser Gln Val Thr Arg Leu Cys Asp			
210	215	220	
Leu Ser Val Glu Gly Asp Ser Val Thr Ser Val Gly Trp Ser Glu Arg			
225	230	235	240
Gly Asn Leu Val Ala Val Gly Thr His Lys Gly Phe Val Gln Ile Trp			
245	250	255	
Asp Ala Ala Ala Gly Lys Lys Leu Ser Met Leu Glu Gly His Thr Ala			
260	265	270	
Arg Val Gly Ala Leu Ala Trp Asn Ala Glu Gln Leu Ser Ser Gly Ser			
275	280	285	
Arg Asp Arg Met Ile Leu Gln Arg Asp Ile Arg Thr Pro Pro Leu Gln			
290	295	300	
Ser Glu Arg Arg Leu Gln Gly His Arg Gln Glu Val Cys Gly Leu Lys			
305	310	315	320
Trp Ser Thr Asp His Gln Leu Leu Ala Ser Gly Gly Asn Asp Asn Lys			
325	330	335	
Leu Leu Val Trp Asn His Ser Ser Leu Ser Pro Val Gln Gln Tyr Thr			
340	345	350	
Glu His Leu Ala Ala Val Lys Ala Ile Ala Trp Ser Pro His Gln His			
355	360	365	
Gly Leu Leu Ala Ser Gly Gly Gly Thr Ala Asp Arg Cys Ile Arg Phe			
370	375	380	
Trp Asn Thr Leu Thr Gly Gln Pro Leu Gln Cys Ile Asp Thr Gly Ser			
385	390	395	400
Gln Val Cys Asn Leu Ala Trp Ser Lys His Ala Asn Glu Leu Val Ser			
405	410	415	
Thr His Gly Tyr Ser Gln Asn Gln Ile Leu Val Trp Lys Tyr Pro Ser			
420	425	430	
Leu Thr Gln Val Ala Lys Leu Thr Gly His Ser Tyr Arg Val Leu Tyr			

```

      435              440              445
Leu Ala Met Ser Pro Asp Gly Glu Ala Ile Val Thr Gly Ala Gly Asp
  450              455              460
Glu Thr Leu Arg Phe Trp Asn Val Phe Ser Lys Thr Arg Ser Thr Lys
  465              470              475              480
Val Lys Trp Glu Ser Val Ser Val Leu Asn Leu Phe Thr Arg Ile Arg
      485              490              495

<210> 6027
<211> 305
<212> DNA
<213> Homo sapiens

<400> 6027
nncccggggc tggggaagac caccctggca cacgtgattg cgcgtcacgc ggggtactct
  60
gtggtggaga tgaatgccag tgacgaccgt agcccgagg tcttcgcac acgcatcgag
  120
gcggccaccc aaatggagtc ggggcttggg gctgccggga agcccaactg cctggtcatc
  180
gatgagatcg acggggcccc cgtggtgggc tccttgatgc ctgggtaggt ggggtggcgg
  240
gcaggcaggc gggcagcagg gcctggactc accgtgtcct ctgacctccc ccaaggccgc
  300
catca
  305

<210> 6028
<211> 75
<212> PRT
<213> Homo sapiens

<400> 6028
Xaa Pro Gly Leu Gly Lys Thr Thr Leu Ala His Val Ile Ala Arg His
  1              5              10              15
Ala Gly Tyr Ser Val Val Glu Met Asn Ala Ser Asp Asp Arg Ser Pro
  20              25              30
Glu Val Phe Arg Thr Arg Ile Glu Ala Ala Thr Gln Met Glu Ser Gly
  35              40              45
Leu Gly Ala Ala Gly Lys Pro Asn Cys Leu Val Ile Asp Glu Ile Asp
  50              55              60
Gly Ala Pro Val Val Gly Ser Leu Met Pro Gly
  65              70              75

<210> 6029
<211> 1350
<212> DNA
<213> Homo sapiens

<400> 6029
tttttttttt ttttttttga tggaaaaatag gatattattgg ggaacccgta caagcagagg
  60
agaagcaggg gtgccaggc tgtcacagcc ttgcagtgc tgggtgggttc cgtggccaac
  120

```

ttgccagggg acaggcctgt tgctggcact cccccacaa ttacaggggt ggagtgaagg
 180
 acctcgcggc tgcggacagg tccttgttag taaggaggag gctctgcagt cccgggtggg
 240
 tcatcttgcc tctccggact gctccctctg actggtgaag ccacactctg tgaagctgtc
 300
 tgacagaagg ggacacgcct ttgctgccca ggatggacct gggccacca ggatgcccgt
 360
 ggccctagcc agggcacgtg tgcccagcgc tggctcctgc tgacccctgg actggctccc
 420
 atctcgggaa tgacgcctgc cgtgggaatc gtggagaggg gggttaattt aacttggaag
 480
 gagcacagaa aggaagtgtg ggagtgcgga gcgaggcctc tggtttggcc ggctccgggt
 540
 gctggggatg gccacacctt ggcagcaggc ggcagagac caggaaggcc taccagcac
 600
 ctgtccagaa aagattggtg tgggttgacc tggcctatgc ggggcagctc agtttgaagc
 660
 aggaacttcc ccaaactgac ccaggctcca agacagcagc attcactttg caccgtgtg
 720
 agcagagcgg ggccctcgca ggtggaaagc cctaggaagg ctgctgtctc tgcaaaccca
 780
 ggggtgtctg ggcogtacag caggggcgtc cgtgtccagg cagctttgtc atgtcttcca
 840
 aaggtcagga aggcgccacc gccctgcccc acgacagctg cgtctgcaag cgccagctct
 900
 gagcactgtt ctccgcccac atgaggacac catccaagaa ttcctctctg gagacctect
 960
 gaggagacgc gaagaccatc gatgcttttg aagaatgaaa agaagtttct gctaagccaa
 1020
 acctaggttg atgggaagtg cctgtgtgga tgtgaagcca ccttgggttg gcggtcggga
 1080
 gctcctctgc ccacatcgcc tcactgggac tcgccatcca gtctgacgtc tttgatgtcc
 1140
 ccataaatct gctggcttcc agggagaacac gtcttgaagc acagctgaac ttgaatcttt
 1200
 tctgggtcct cctgctgggc cgtggtgggg agcgcgtccc gttgcctcaa ggccctccaa
 1260
 cctgccaggt caggtgatg gcagtggctg cgcgatgaca tgatgcgggt gccctcggtt
 1320
 atgcgcggct tcggcagccc agccgagcct
 1350

<210> 6030

<211> 99

<212> PRT

<213> Homo sapiens

<400> 6030

Met Gly Thr Ser Lys Thr Ser Asp Trp Met Ala Ser Pro Ser Glu Ala
 1 5 10 15
 Met Trp Ala Glu Glu Leu Arg Ala Ala His Pro Arg Trp Leu His Ile
 20 25 30
 His Thr Gly Thr Ser His Pro Pro Arg Phe Gly Leu Ala Glu Thr Ser

	35		40		45
Phe	His	Ser	Ser	Lys	Ala
	50		55		60
Ser	Gln	Glu	Glu	Phe	Leu
65		70		75	80
Ala	Gln	Ser	Trp	Arg	Leu
	85		90		95
Ala	Pro	Ser			

<210> 6031

<211> 1316

<212> DNA

<213> Homo sapiens

<400> 6031

```

nntctagacc agtatgcccc agatgtggcc gaactcatcc ggacccctat ggaaatgcgt
60
tacctccctt tgaagtggcc cctgttctat ctcttaaatc cttacacgat tttgtcttgt
120
gttgccaagt ctacctgtgc catcaacaac accctcattg ctttcttcat tttgaactag
180
ataaaaggca gtgctttcct cagtgtctatt tttcttgctt tagcgacata ccagtctctg
240
taccacttca cctgttttgt cccaggactc ctctatctcc tccagcggca gtacatacct
300
gtgaaaaatga agagcaaaagc cttctggatc ttttcttggg agtatgccat gatgtatgtg
360
ggaagcctag tggtaatcat ttgctctctc ttcttctctc tcagctcttg ggatttcac
420
ccgcagctct atggctttat actttctgtt ccagatctca ctccaacat tggctctttc
480
tggtacttct ttgcagagat gtttgagcac ttcagctctt tctttgtatg tgtgtttcag
540
atcaacgtct tcttctacac catcccccta gccataaagc taaaggagca ccccatcttc
600
ttcatgttta tccagatcgc tgtcatcgcc atctttaagt cctacccgac agtggggggac
660
gtggcgctct acatggcctt cttccccgtg tggaaccatc tctacagatt cctgagaaa
720
atctttgttc tcacctgcat catcctgtgc tgttccctgc tcttccctgt cctgtggcac
780
ctctggattt atgcaggaag tgccaactct aatttctttt atgccatcac actgaccttc
840
aacgttgggc agatcctgct catctctgat tacttctatg ccttccctgc gcgaggagtac
900
tacctcacac atggcctcta cttgaccgcc aaggatggca cagaggccat gctcgtgctc
960
aagtggcctt ggctggcaca gggctgcatg gacctcaggg ggctgtgggg ccagaagctg
1020
ggccaagccc tccagccaga gttgccagca ggcgagtgtc tgggcagaag aggttcgagt
1080
ccagggtcac aagtctctgg taccaaaagg gacctatggc tgactgacag caaggcctat
1140

```

gggggaagaac tgggagctcc ccaacttgga cccccacctt gtggctctgc acaccaagga
 1200
 gccccctccc agacaggaag gagaagaggc aggtgagcag ggcttgtag attgtggcta
 1260
 cttataaat gtttttgtt atgaagtcta aaaaaaaaa aaaaaaaaa aaaaaa
 1316

<210> 6032

<211> 321

<212> PRT

<213> Homo sapiens

<400> 6032

Xaa	Leu	Asp	Gln	Tyr	Ala	Pro	Asp	Val	Ala	Glu	Leu	Ile	Arg	Thr	Pro
1			5						10				15		
Met	Glu	Met	Arg	Tyr	Ile	Pro	Leu	Lys	Val	Ala	Leu	Phe	Tyr	Leu	Leu
		20						25				30			
Asn	Pro	Tyr	Thr	Ile	Leu	Ser	Cys	Val	Ala	Lys	Ser	Thr	Cys	Ala	Ile
		35					40					45			
Asn	Asn	Thr	Leu	Ile	Ala	Phe	Phe	Ile	Leu	Thr	Thr	Ile	Lys	Gly	Ser
	50					55					60				
Ala	Phe	Leu	Ser	Ala	Ile	Phe	Leu	Ala	Leu	Ala	Thr	Tyr	Gln	Ser	Leu
	65				70					75				80	
Tyr	Pro	Leu	Thr	Leu	Phe	Val	Pro	Gly	Leu	Leu	Tyr	Leu	Leu	Gln	Arg
			85						90				95		
Gln	Tyr	Ile	Pro	Val	Lys	Met	Lys	Ser	Lys	Ala	Phe	Trp	Ile	Phe	Ser
		100						105					110		
Trp	Glu	Tyr	Ala	Met	Met	Tyr	Val	Gly	Ser	Leu	Val	Val	Ile	Ile	Cys
		115						120				125			
Leu	Ser	Phe	Phe	Leu	Leu	Ser	Ser	Trp	Asp	Phe	Ile	Pro	Ala	Val	Tyr
		130					135				140				
Gly	Phe	Ile	Leu	Ser	Val	Pro	Asp	Leu	Thr	Pro	Asn	Ile	Gly	Leu	Phe
	145				150				155					160	
Trp	Tyr	Phe	Phe	Ala	Glu	Met	Phe	Glu	His	Phe	Ser	Leu	Phe	Phe	Val
			165						170					175	
Cys	Val	Phe	Gln	Ile	Asn	Val	Phe	Phe	Tyr	Thr	Ile	Pro	Leu	Ala	Ile
			180					185					190		
Lys	Leu	Lys	Glu	His	Pro	Ile	Phe	Phe	Met	Phe	Ile	Gln	Ile	Ala	Val
		195						200				205			
Ile	Ala	Ile	Phe	Lys	Ser	Tyr	Pro	Thr	Val	Gly	Asp	Val	Ala	Leu	Tyr
	210					215					220				
Met	Ala	Phe	Phe	Pro	Val	Trp	Asn	His	Leu	Tyr	Arg	Phe	Leu	Arg	Asn
				230					235					240	
Ile	Phe	Val	Leu	Thr	Cys	Ile	Ile	Ile	Val	Cys	Ser	Leu	Leu	Phe	Pro
				245					250					255	
Val	Leu	Trp	His	Leu	Trp	Ile	Tyr	Ala	Gly	Ser	Ala	Asn	Ser	Asn	Phe
		260						265					270		
Phe	Tyr	Ala	Ile	Thr	Leu	Thr	Phe	Asn	Val	Gly	Gln	Ile	Leu	Leu	Ile
		275				280						285			
Ser	Asp	Tyr	Phe	Tyr	Ala	Phe	Leu	Arg	Arg	Glu	Tyr	Tyr	Leu	Thr	His
		290				295					300				
Gly	Leu	Tyr	Leu	Thr	Ala	Lys	Asp	Gly	Thr	Glu	Ala	Met	Leu	Val	Leu
					310					315					320
Lys															

<210> 6033

<211> 5157

<212> DNA

<213> Homo sapiens

<400> 6033

caattgctct atgtagtgc ctttgttgcc aaagtccttag aatctagcat tegttagtgt
60
gttttttaggc caccaaaccc ttggacaatg gcaattatga atgtattagc tgagctacat
120
caggagcatg acttaaaagt aaacttgaag ttgaaatcg aggttctctg caagaacctt
180
gcattagaca tcaatgagct aaaacctgga aacctcctaa aggataaaga tcgcctgaag
240
aatttagatg agcaactctc tgctccaagg aaagatgtca agcagccaga agaactccct
300
cccatcacia ccacaacaac ttctactaca ccagctacca acaccacttg tacagccacy
360
gttccaccac agccacagta cagctaccac gacatcaatg tctattccct tgcgggcttg
420
gcaccacaca ttactctaaa tccaacaatt cccttgttcc aggcccatcc acagtgaag
480
cagtgtgtgc gtcaggcaat tgaacgggct gtccaggagc tgggccatcc tgtggtggat
540
cgatcaatta agattgccat gactacttgt gagcaaatga tcaggaaagga ttttgccctg
600
gattcggagg aatctcgaat gcgaatagca gctcatcaca tgatgcgtaa cttgacagct
660
ggaaatggcta tgattacatg cagggaaacct ttgctcatga gcatatctac caacttaaaa
720
aacagttttg cctcagccct tcgtactgct tccccacaac aaagagaat gatggatcag
780
gcagctgctc aattagctca ggacaattgt gagttggctt gctgttttat tcagaagact
840
gcagtagaaa aagcaggccc tgagatggac aagagattag caactgaatt tgagctgaga
900
aaacatgcta ggcaagaagg acgcagatag tgtgatccct ttgttttaac atatcaagct
960
gaacggatgc cagagcaaat caggctgaaa gttggtgggt tggacccaaa gcagttggct
1020
gtttacgaag agtttgcacg caatgttccct ggcttcttac ctacaaatga cttaagtacg
1080
ccacgggat ttttagccca gcccatgaag caagcttggg caacagatga tgtatgctag
1140
atttatgata agtgtattac agaactggag caacatctac atgccatccc accaactttg
1200
gccatgaacc ctcaagctca ggctcttcga agtctcttgg aggttgtagt ttatctcga
1260
aactctcggg atgccatagc tgctcttgga ttgctccaaa aggctgtaga gggcttacta
1320
gatgccacaa gtggtgctga tgctgacctt ctgctgcgct acagggaatg ccacctcttg
1380

gtcctaaaag ctctgcagga tggccgggca tatgggtctc catggtgcaa caaacagatc
1440
acaaggtgcc taattgaatg tcgagatgaa tataaatata atgtggaggc tgtggagctg
1500
ctaattcgca atcatttggg taatatgcag cagtatgac ttcacctagc gcagtcfaatg
1560
gagaatggct taaactacat ggctgtggca ttgtctatgc agttagtaaa aatcctgctg
1620
gtggatgaaa ggagtgttgc tcatgttact gaggcagatc tgttccacac cattgaaacc
1680
ctcatgagga ttaatgtcca ttccagaggc aatgctccag aaggattgac ccagctgatg
1740
gaagtatgtc gatccaacta tgaagcaatg attgatcgtg ctcatggagg cccaaacttt
1800
atgatgcatt ctgggatctc tcaagcctca gatatgatg accctccagg cctgaggggag
1860
aaggcagagt atcttctgag ggaatgggtg aatctctacc attcagcagc agctggccgc
1920
gacagtacca aagctttctc tgcatttgtt ggacaggtag agcttttggg aagaaagatg
1980
caccagcaag gaatactgaa gaccgatgat ctcatacaaa ggttctttcg tctgtgtact
2040
gaaatgtgtg ttgaaatcag ttaccgtgct caggctgagc agcagcacia tctgtctgcc
2100
aatccacca tgatccgagc caagtgtcat cacaacctgg atgccttttg tgcactcatt
2160
gcactgctcg tgaaacactc aggggaggcc accaacctg tcacaaagat taatctgctg
2220
aacaaggtcc ttggtatagt agtgggagtt ctccctcagg atcatgatgt tcgtcagagt
2280
gaatttcagc aacttcccta ccatcgaatt tttatcatgc ttctcttggg actcaatgca
2340
cctgagcatg tgttggaaac cattaatttc cagacactta cagctttctg caatacatc
2400
cacatcttga ggccaccia agctcctggc ttgttatatg cctggcttga actgatttcc
2460
catcggtat tatttgcaag aatgctggca catcggccac agcagaaggg gtggcctatg
2520
tatgcacagc tactgattga ttattcaaa tatctagcgc ctttccctag aaatgtggaa
2580
ctcacciaac ctatgcaaat cctctacaag ggcactttaa gagtgtctgt ggttcttttg
2640
catgatttcc cagagtctct ttgtgattac cattatgggt tctgtgatgt gatccacact
2700
aattgtatcc agttaagaaa ttgatcctg agtgcccttc caagaaacat gaggctcccc
2760
gaccattca ctctaactc aaagggtggc atgttgagtg aaattaacat tgctccccgg
2820
attctacca atttactg agtaatgcca cctcagtcca aaaaggattt ggattcctat
2880
cttaaaaactc gatcaccagt cactttctgt tctgatctgc gcagcaacct acaggtatcc
2940
aatgaacctg ggaatcgcta caacctccag ctcatcaatg cactgggtgt ctatgtcggg
3000

actcaggcca ttgcgcacat ccacaacaag ggcagcacac cttcaatgag caccatcact
3060
cactcagcac acatggatat cttccagaat ttggctgtgg acttggacac tgagggctgc
3120
tatctctttt tgaatgcaat tgcaaatcag ctccggtacc caaatagcca cactcactac
3180
ttcagttgca ccatgctgta cctttttgca gagccaata cggaagccat ccaagaacag
3240
atcacaagag ttctcttgga acggttgatt gtaaataggc cacatccttg gggctcttct
3300
attaccttca ttgagctgat taaaaaccca gcgtttaagt tctggaacca tgaatttgta
3360
cactgtgccc cagaaatcga aaagtatttc cagtcggtcg cacagtgtcg catgggacag
3420
aagcaggccc agcaagtaat ggaagggaca ggtgccagtt agacgaaact gcattctctgt
3480
tgtacgtgtc agtctagagg tctcactgca ccgagttcat aaactgactg aagaatcctt
3540
tcagctcttc ctgactttcc cagccctttg gtttgtgggt atctgcccca actactgttg
3600
ggatcagcct cctgtcttat gtgggcacgt tccaaagttt aaatgcattt ttttgactct
3660
tggccaaaat ttagaagatg ctgtgaatat cattttgaac ttgtgtaaat acatgaaaga
3720
gaaaaccttt gtctggaact tcttggcttt gtgcaagctg tgtccaaagg aagtacataa
3780
actggtacct tgtaatgaag aggcagctga tgccatgac ttgtctgagg gcatagctcc
3840
atgtcttctg acattcctgg tgtcccaagg aatagcaaaa agccagtttg aatattatgt
3900
aacttatttt ttaaatgtgg acaggggacc ttgaaaatca ctaagttatt aaaaatgtgg
3960
atgtgctaga attgatatg tccaggaaca tgggaagggc tcactattgg aatcccatga
4020
gtttccattt tgtctctacc caaacgtatt ccaaagctga ctgcatttgt accatttat
4080
ttcttttggg gattatacac ctacgcccgc tgagatgggg gtcagctctt tatataaagg
4140
gaaaccagac caggcctaaa gccaccccc tacctcacc ccacaatcc tctctgtaaa
4200
cttaaaaaca gtgggaatat aggaaggga accaaatctc attaatatgt ttgtctcccc
4260
cattacccca ctgaatgaat gccatacag gctaagctga ataatgacaa agttgaaagg
4320
accaatacag ccccttttat aaggattttg aatgttttgc aaatgtattg gtccctgtgt
4380
tgtattttgt agccttttcc tgggcttcag ctcccctact tcttgtatgt gtatgcatac
4440
tgtagctaac cattaaagtc atgacacaca catgagtcca ctgtgccttt ctacagtagca
4500
gcaggcagtg ctgggtgtga ggaggaaaaa tggacaatcc agccctgtag accttggggc
4560
catgggggaa caacaactaa cttcttgctg aatgattgat ttgattgatt gattgatagg
4620

tcattectac tactaagctg gcatgtttaa ggaaattgta ttttcttcc tatttatttc
 4680
 aacactggac aaatgctgga gcaggtttat ctggttaagc tgagtttaaa ataccagtt
 4740
 ttaataatcct tttcccccag gtattttttt ttttttttaa agaaaatgag tagatagcta
 4800
 tttaaaaact taaccactt aaaatttgcc ttacctttca tgactgtcaa gttttatggc
 4860
 cagagaggac aaaacagttc aaaattaaat aattgaagtc ctccttgagt gatgtcttag
 4920
 ggtttattcc ctgagaggtg gtttgtgcc tctagactga actttgggta actatcgagt
 4980
 accagttaca cagcttatta aatccagagt cttttcaata aaggtttaagt gacttctcta
 5040
 aactagactt agattttaac caggggtcta ctcctaaagt ctattattaa atgtgaaac
 5100
 acaacaagac ttacttatta ctaccgtatg tccactggct ttggttaaaa ctgagaa
 5157

<210> 6034

<211> 1096

<212> PRT

<213> Homo sapiens

<400> 6034

Lys Asn Leu Ala Leu Asp Ile Asn Glu Leu Lys Pro Gly Asn Leu Leu
 1 5 10 15
 Lys Asp Lys Asp Arg Leu Lys Asn Leu Asp Glu Gln Leu Ser Ala Pro
 20 25 30
 Arg Lys Asp Val Lys Gln Pro Glu Glu Leu Pro Pro Ile Thr Thr Thr
 35 40 45
 Thr Thr Ser Thr Thr Pro Ala Thr Asn Thr Thr Cys Thr Ala Thr Val
 50 55 60
 Pro Pro Gln Pro Gln Tyr Ser Tyr His Asp Ile Asn Val Tyr Ser Leu
 65 70 75 80
 Ala Gly Leu Ala Pro His Ile Thr Leu Asn Pro Thr Ile Pro Leu Phe
 85 90 95
 Gln Ala His Pro Gln Leu Lys Gln Cys Val Arg Gln Ala Ile Glu Arg
 100 105 110
 Ala Val Gln Glu Leu Val His Pro Val Val Asp Arg Ser Ile Lys Ile
 115 120 125
 Ala Met Thr Thr Cys Glu Gln Ile Val Arg Lys Asp Phe Ala Leu Asp
 130 135 140
 Ser Glu Glu Ser Arg Met Arg Ile Ala Ala His His Met Met Arg Asn
 145 150 155 160
 Leu Thr Ala Gly Met Ala Met Ile Thr Cys Arg Glu Pro Leu Leu Met
 165 170 175
 Ser Ile Ser Thr Asn Leu Lys Asn Ser Phe Ala Ser Ala Leu Arg Thr
 180 185 190
 Ala Ser Pro Gln Gln Arg Glu Met Met Asp Gln Ala Ala Ala Gln Leu
 195 200 205
 Ala Gln Asp Asn Cys Glu Leu Ala Cys Cys Phe Ile Gln Lys Thr Ala
 210 215 220
 Val Glu Lys Ala Gly Pro Glu Met Asp Lys Arg Leu Ala Thr Glu Phe

```

225          230          235          240
Glu Leu Arg Lys His Ala Arg Gln Glu Gly Arg Arg Tyr Cys Asp Pro
          245          250          255
Val Val Leu Thr Tyr Gln Ala Glu Arg Met Pro Glu Gln Ile Arg Leu
          260          265          270
Lys Val Gly Gly Val Asp Pro Lys Gln Leu Ala Val Tyr Glu Glu Phe
          275          280          285
Ala Arg Asn Val Pro Gly Phe Leu Pro Thr Asn Asp Leu Ser Gln Pro
          290          295          300
Thr Gly Phe Leu Ala Gln Pro Met Lys Gln Ala Trp Ala Thr Asp Asp
          305          310          315          320
Val Ala Gln Ile Tyr Asp Lys Cys Ile Thr Glu Leu Glu Gln His Leu
          325          330          335
His Ala Ile Pro Pro Thr Leu Ala Met Asn Pro Gln Ala Gln Ala Leu
          340          345          350
Arg Ser Leu Leu Glu Val Val Val Leu Ser Arg Asn Ser Arg Asp Ala
          355          360          365
Ile Ala Ala Leu Gly Leu Leu Gln Lys Ala Val Glu Gly Leu Leu Asp
          370          375          380
Ala Thr Ser Gly Ala Asp Ala Asp Leu Leu Leu Arg Tyr Arg Glu Cys
          385          390          395          400
His Leu Leu Val Leu Lys Ala Leu Gln Asp Gly Arg Ala Tyr Gly Ser
          405          410          415
Pro Trp Cys Asn Lys Gln Ile Thr Arg Cys Leu Ile Glu Cys Arg Asp
          420          425          430
Glu Tyr Lys Tyr Asn Val Glu Ala Val Glu Leu Leu Ile Arg Asn His
          435          440          445
Leu Val Asn Met Gln Gln Tyr Asp Leu His Leu Ala Gln Ser Met Glu
          450          455          460
Asn Gly Leu Asn Tyr Met Ala Val Ala Phe Ala Met Gln Leu Val Lys
          465          470          475          480
Ile Leu Leu Val Asp Glu Arg Ser Val Ala His Val Thr Glu Ala Asp
          485          490          495
Leu Phe His Thr Ile Glu Thr Leu Met Arg Ile Asn Ala His Ser Arg
          500          505          510
Gly Asn Ala Pro Glu Gly Leu Pro Gln Leu Met Glu Val Val Arg Ser
          515          520          525
Asn Tyr Glu Ala Met Ile Asp Arg Ala His Gly Gly Pro Asn Phe Met
          530          535          540
Met His Ser Gly Ile Ser Gln Ala Ser Glu Tyr Asp Asp Pro Pro Gly
          545          550          555          560
Leu Arg Glu Lys Ala Glu Tyr Leu Leu Arg Glu Trp Val Asn Leu Tyr
          565          570          575
His Ser Ala Ala Ala Gly Arg Asp Ser Thr Lys Ala Phe Ser Ala Phe
          580          585          590
Val Gly Gln Val Glu Leu Leu Glu Arg Lys Met His Gln Gln Gly Ile
          595          600          605
Leu Lys Thr Asp Asp Leu Ile Thr Arg Phe Phe Arg Leu Cys Thr Glu
          610          615          620
Met Cys Val Glu Ile Ser Tyr Arg Ala Gln Ala Glu Gln Gln His Asn
          625          630          635          640
Pro Ala Ala Asn Pro Thr Met Ile Arg Ala Lys Cys Tyr His Asn Leu
          645          650          655
Asp Ala Phe Val Arg Leu Ile Ala Leu Leu Val Lys His Ser Gly Glu

```

660										665										670									
Ala	Thr	Asn	Thr	Val	Thr	Lys	Ile	Asn	Leu	Leu	Asn	Lys	Val	Leu	Gly														
		675																											
Ile	Val	Val	Gly	Val	Leu	Leu	Gln	Asp	His	Asp	Val	Arg	Gln	Ser	Glu														
		690						695				700																	
Phe	Gln	Gln	Leu	Pro	Tyr	His	Arg	Ile	Phe	Ile	Met	Leu	Leu	Leu	Glu														
705					710					715					720														
Leu	Asn	Ala	Pro	Glu	His	Val	Leu	Glu	Thr	Ile	Asn	Phe	Gln	Thr	Leu														
					725					730					735														
Thr	Ala	Phe	Cys	Asn	Thr	Phe	His	Ile	Leu	Arg	Pro	Thr	Lys	Ala	Pro														
					740					745					750														
Gly	Phe	Val	Tyr	Ala	Trp	Leu	Glu	Leu	Ile	Ser	His	Arg	Ile	Phe	Ile														
					755					760					765														
Ala	Arg	Met	Leu	Ala	His	Thr	Pro	Gln	Gln	Lys	Gly	Trp	Pro	Met	Tyr														
					770					775					780														
Ala	Gln	Leu	Leu	Ile	Asp	Leu	Phe	Lys	Tyr	Leu	Ala	Pro	Phe	Leu	Arg														
785					790										800														
Asn	Val	Glu	Leu	Thr	Lys	Pro	Met	Gln	Ile	Leu	Tyr	Lys	Gly	Thr	Leu														
					805					810					815														
Arg	Val	Leu	Leu	Val	Leu	Leu	His	Asp	Phe	Pro	Glu	Phe	Leu	Cys	Asp														
					820					825					830														
Tyr	His	Tyr	Gly	Phe	Cys	Asp	Val	Ile	Pro	Pro	Asn	Cys	Ile	Gln	Leu														
					835					840					845														
Arg	Asn	Leu	Ile	Leu	Ser	Ala	Phe	Pro	Arg	Asn	Met	Arg	Leu	Pro	Asp														
					850										855														
Pro	Phe	Thr	Pro	Asn	Leu	Lys	Val	Asp	Met	Leu	Ser	Glu	Ile	Asn	Ile														
865					870										875														
Ala	Pro	Arg	Ile	Leu	Thr	Asn	Phe	Thr	Gly	Val	Met	Pro	Pro	Gln	Phe														
					885										890														
Lys	Lys	Asp	Leu	Asp	Ser	Tyr	Leu	Lys	Thr	Arg	Ser	Pro	Val	Thr	Phe														
					900					905					910														
Leu	Ser	Asp	Leu	Arg	Ser	Asn	Leu	Gln	Val	Ser	Asn	Glu	Pro	Gly	Asn														
					915					920					925														
Arg	Tyr	Asn	Leu	Gln	Leu	Ile	Asn	Ala	Leu	Val	Leu	Tyr	Val	Gly	Thr														
					930					935					940														
Gln	Ala	Ile	Ala	His	Ile	His	Asn	Lys	Gly	Ser	Thr	Pro	Ser	Met	Ser														
945					950										955														
Thr	Ile	Thr	His	Ser	Ala	His	Met	Asp	Ile	Phe	Gln	Asn	Leu	Ala	Val														
					965																								

1090

1095

<210> 6035
 <211> 320
 <212> DNA
 <213> Homo sapiens

<400> 6035
 tgcacacaaa gtccctgctg agtctggggg ataggaaggg tctcaatcat ggtccatggg
 60
 taatctcttt gcccatgtga atgtgcccaa tgtatcaaa gctccattct aaatggcatg
 120
 gtggggcagc ggtgggcatt gtggctctgt gatctgggcc aggctcccag ccaccctggg
 180
 ggttccctgc tgggctcctg gaggacctgc ctcaaccctt ggatatgggg ttccacctga
 240
 cagcagggaaa agagatttga ggcttgaggt ccaggcagga cagatggtag aaaccaatgg
 300
 agatgcatgg cctcgggccc
 320

<210> 6036
 <211> 102
 <212> PRT
 <213> Homo sapiens

<400> 6036
 Met His Leu His Trp Phe Leu Pro Ser Val Leu Pro Gly Leu Gln Ala
 1 5 10 15
 Ser Asn Leu Phe Ser Cys Cys Gln Val Glu Pro His Ile Gln Gly Leu
 20 25 30
 Arg Gln Val Leu Gln Glu Pro Ser Arg Glu Pro Pro Gly Trp Leu Gly
 35 40 45
 Ala Trp Pro Arg Ser Gln Ser His Asn Ala His His Cys Pro Thr Met
 50 55 60
 Pro Phe Arg Met Glu Pro Leu Ile His Trp Ala His Ser His Gly Gln
 65 70 75 80
 Arg Asp Tyr Pro Trp Thr Met Ile Glu Thr Leu Pro Ile Pro Gln Thr
 85 90 95
 Gln Gln Gly Leu Cys Asp
 100

<210> 6037
 <211> 3910
 <212> DNA
 <213> Homo sapiens

<400> 6037
 aagcagcogn agcctagctt ggctccggcc ctgcctggcg ccctgtctat cacggcgcgtg
 60
 tgcactgccc tcgcgagcc cgcctggttg cacatccacg gaggcacctg ttgcgcgccg
 120
 gagctggggg tctccgacgt gttgggctat gtgccccgg acctgctgaa agatttctgc
 180

atgaatcccc agacagtgtc gctcctcgcg gtcacgcgcg ccttctgttt cctgggcac
240
ctgtgtagtc tctccgcttt ccttctggat gtctttgggc cgaagcatcc tgccttgaag
300
atcactcgtc gctatgcctt cgcccatatc ctaacggttc tgcagtgtgc caccgtcatt
360
ggcttttctt attgggttc tgaactcacc ttggcccagc agcagcagca taagaagtac
420
catggatccc aggtctatgt caccctcgcc gttagcttct acctgggtggc aggagctgggt
480
ggagcctcaa tcctggccac ggacgccaac ctctgcgc actacccac agaggaagag
540
gagcaggcgc tggagctgtc ctacagagatg gaagagaacg agccctacc ggcggaatat
600
gagggtatca accagtcca gccacctcct gcttacacac cctaatgcca gccctgggct
660
ctcttctctg gcagcccttc cctcaactct gcagctcttc tcgcacccag aggagctcct
720
tccccagca ggcctcactg gtaggacctt gaccatcttc tccaaacctt cccaggagga
780
gactctgctt taggggtcat ccaagtatcc ctgctctcag aaccggagggt ccaactggtt
840
tctataatgt actctttccc tcctgccaca tcttgcccc ttcacattca cgagtcatta
900
ccagccaggg aaggtcatcc aagtttcttc cagcatgggc gatattcttg ggaccgagac
960
tttctttgga gagctgtctg gagcggacag tcccaaaaac aagtgtcaaa gggcccaagg
1020
gaaaggggac tgtgcccttg aggtctcact cacaggatc agtgtttgct ccacagctgt
1080
agctctgggc tgacgcccc cagacccctt ccttctcgga gtgacccgc cccagggcac
1140
ctgctccggg gagttctgtg cactttactc ttggacttc tcctcacgtg tgccctgggt
1200
ttatggggag agggaatcgc tgttgggaag gcagagcagt tgcaacctc tctgcccttg
1260
cttcagtgtg ctggagccca ggcaaggaga gcaggacca gcgtgagact gaggccctt
1320
ggtgectatc aaggaccaga gtgaagggga ctacatctcc cagcccttca ccttttaaat
1380
atgagtgtgt ttaaaaggaa aaaaatgaaa ccaggcaaca gcaacaatat tctgttttta
1440
aaatagggac aagactgttg tcaactttta gacatgtatc ccattccttt tggctctgca
1500
atatttgggg ctgtagctcc ttccaagccc atggtagtcc ctccccgagt ctctcccagt
1560
agaaatgcagc ctcccttccc tggcccttc cctctcagt acggtgactc cctggggcct
1620
ctcctgtgaa ccagagggg ctgaggactg tggcctggct ggcgggccag cgtgtgtgctc
1680
ctcaggactg cagcactgag atggaacctg gcctcagttt aggaacaggg gccacaacag
1740
ggcaggaacc caccaccctc cacataggaa tacaaccagt ggggccacat catgtgaggc
1800

atcagaccca cactgtcagc ccagcaggcc gggctgtgtc cttcagaccc agtgcgtccc
1860
tagactctga ctcggaactc cagcttgcca cgtgcctctc cccctcttga atgtactctg
1920
gtcttgagcgt gtgctgctgg gactttcttg ctcagccatc actctgggtca ccttgtttgc
1980
tctgggtctg gctgaatttt ctgccctgag atctgggcat aaagtggatg aaacttgaaa
2040
gaccttcagt gtatgccag atggccaacc tgtccttggt aagttacttg cttcttggga
2100
atcagtgtcc cctgctgagc tgaaaaggaa atggattcca atctctteca acctttaagg
2160
tgatagatag tttgagcaag actggagaat ggacaacact atgaagctgt ggctagaaag
2220
ggactgtcat gtcccatcct ttggccagat tgactgggga tgtccggaca gatgcctgca
2280
tgggtgttga gggccacatc tgcacacgag ccagtggctg cttgcagtgc actgctgtga
2340
tgccagagtg tgttcaaagg tgactctcct gctctctctg actctctctc caggcaagaa
2400
aggctgcagg ctgcctgcta tgtgatgcct gacacaaaag ccaaggaaact gaactaagtc
2460
ttctgttaa gtccctgagtt tgtcattggc aggtttactt gtggccagct ctctctgccc
2520
ttgggtgtct gagcaggcag accagaagac caggcactgg acctgcattc caaagggact
2580
ggtcattctc tgaggacctg tacatgaccc tgtggactgt tccgcacgat ccggaaccca
2640
ctttttatc actcccatg tctttggcct tcctcttctt tctctttccc tctgccatcc
2700
tgacactgat agtttgtcat ataaattccc cgggttgtgt ttttttttct agaaaaaaat
2760
taaaagggaa aacaaaacca aaaaaaccag aaaccacgaa taagaatgga aatgacaatg
2820
gctgcctggt atttttctgt cacgatttct ctgatttggt ttgttcctt tgtctcagag
2880
aagcaggaga tgttgatgag gctgtatttt tttttctttt tcttgttttt gagacaagag
2940
tctgcctctg tcacccgggc tggagtgtaa cgtggcatga tctcagctca ctgcaacctc
3000
tgccctctgg gttcaagcga ttactctgcc tcagcctcct gagtagctgg gattacaggg
3060
atgcgccact atgccagat aatttttttg tatttttagt agagacaggg ttccaccatg
3120
ttggccaggc tgggtctgga ctcctaacct cagggttatcc acccaccttg gcctcccaaa
3180
gtgctgggat tataggcatg aaccaccgtg cctggccaaa gatgtaattt aaaatagtta
3240
gaaaggactt ggcattggcc agctccgtgc atggcatttt cacccccaga gcttcctaatt
3300
cctgttttca cacaggaagt ttctaggtct ttctagaaca gctagaaaa gtatgctgact
3360
ccgccccaag gcccaacctt caaaccttga gctcttcagg ctgcatcttc tggtagacta
3420

tagaggagaa cgtggctcct aaactctagc catcctgtgg gaggaataag acttcttttg
 3480
 gctgtggcct gcagaacaaa ctacactttt tttccctcta ttgtttaaat ttattttaat
 3540
 aatttctgtg tttttctgtc tttattttct gtatttcacg tgttcttca ctccttagaa
 3600
 actgcacttt ctttgaacc ataggtaatg aatcttacta ggagaggcat ggggatagag
 3660
 acagtcttgg gagtctgacc tgtaagcctc ctgtagggca gtgccaggcc ttgattgccc
 3720
 acgttctctc cgttctctct tccttcatac atttgatcac acagcctaca cccagccccg
 3780
 agtctgcatc acggtaaaag agctgagggc tctcttcagg gagcagccca tttagggtctc
 3840
 ttttgttgtt gttagggaga atacacatct ttcttggaaa aaaaaaaaaa aaaaaaaaaa
 3900
 aaaaaaaaaagg
 3910

<210> 6038

<211> 214

<212> PRT

<213> Homo sapiens

<400> 6038

Lys	Gln	Pro	Xaa	Arg	Ser	Leu	Ala	Pro	Ala	Leu	Pro	Gly	Ala	Leu	Ser
1				5					10				15		
Ile	Thr	Ala	Leu	Cys	Thr	Ala	Leu	Ala	Glu	Pro	Ala	Trp	Leu	His	Ile
		20						25					30		
His	Gly	Gly	Thr	Cys	Ser	Arg	Gln	Glu	Leu	Gly	Val	Ser	Asp	Val	Leu
		35					40					45			
Gly	Tyr	Val	His	Pro	Asp	Leu	Leu	Lys	Asp	Phe	Cys	Met	Asn	Pro	Gln
		50					55				60				
Thr	Val	Leu	Leu	Leu	Arg	Val	Ile	Ala	Ala	Phe	Cys	Phe	Leu	Gly	Ile
65					70					75				80	
Leu	Cys	Ser	Leu	Ser	Ala	Phe	Leu	Leu	Asp	Val	Phe	Gly	Pro	Lys	His
				85					90				95		
Pro	Ala	Leu	Lys	Ile	Thr	Arg	Arg	Tyr	Ala	Phe	Ala	His	Ile	Leu	Thr
			100					105				110			
Val	Leu	Gln	Cys	Ala	Thr	Val	Ile	Gly	Phe	Ser	Tyr	Trp	Ala	Ser	Glu
		115					120					125			
Leu	Ile	Leu	Ala	Gln	Gln	Gln	Gln	His	Lys	Lys	Tyr	His	Gly	Ser	Gln
		130					135					140			
Val	Tyr	Val	Thr	Phe	Ala	Val	Ser	Phe	Tyr	Leu	Val	Ala	Gly	Ala	Gly
145					150					155				160	
Gly	Ala	Ser	Ile	Leu	Ala	Thr	Ala	Ala	Asn	Leu	Leu	Arg	His	Tyr	Pro
				165					170				175		
Thr	Glu	Glu	Glu	Glu	Gln	Ala	Leu	Glu	Leu	Leu	Ser	Glu	Met	Glu	Glu
			180					185				190			
Asn	Glu	Pro	Tyr	Pro	Ala	Glu	Tyr	Glu	Val	Ile	Asn	Gln	Phe	Gln	Pro
		195					200					205			
Pro	Pro	Ala	Tyr	Thr	Pro										
			210												

<210> 6039
 <211> 1130
 <212> DNA
 <213> Homo sapiens

<400> 6039
 nncgnttag ctatittgtt tatccatgca gccgcgtggg cctcggaggg gctcctcggc
 60
 gtgctgcgcg ccgggcccgg gccggaggcg ttactgcagg tctgggcggc cgaatcggcg
 120
 ctgctgtggg agccattgtg gggccagaat gtggtgcccg aggccgaagg ggaagacgat
 180
 ccggccgggt agggccaggc tgggaggcta cccctgctgc cctgcgcccg tgcctacgtg
 240
 agcccgccgg cgcccttcta ccggcctctg gctccggagg tgcggggcag ccagctggag
 300
 ctggggcgccg agcacgcgtt gctgctggac gctgctggcc aggtgtttct ctggggcggg
 360
 ggaggcgatg gacagctggg ccatgggacc ctggaggcag agctggagcc acggctgttg
 420
 gaggcggttc agggcctagt catggctgag gtggccggcg ggggctggca ttctgtgtgt
 480
 gtgagtgaga ctggggatat ttatatctgg ggctggaatg aatcagggca gctggccctg
 540
 ccaccaggga acctggcaga ggaaggagag actgtcgcaa gggaaggcac agaactgaat
 600
 gaaagatggt ctcaggtgaa gagaacgggt ggggctgagg atggagcccc tgcccccttc
 660
 atagctgtcc agcccttccc ggcattactg gatctcccca tgggctcaga tgcagtcagg
 720
 gccagctgtg gatcccgga caccgctgtg gtgacacgaa caggggagct ctacacctgg
 780
 ggctggggta aatatggaca gctggggccac gaggacacca ccagcttgga tcggcctcgc
 840
 cgtgtggaat actttgtaga taagcaactc caagtaaagg ctgtcacctg tgggcccgtg
 900
 aacacctacg tgtatgtgtg ggagaaaggg aagagctgac atgtgtacgt atatgtatat
 960
 gcaaacctct tgagaccccc attcagtgca aggaaaacca ttgcctgcac ccaaggggcc
 1020
 ccattattgc cctcccccac cacagtcctg ccttcaccc tcaagcaagg tcctaaactt
 1080
 gtctgcactt tagaaacacc tggagagcat tgaaaactct gctgcctaag
 1130

<210> 6040
 <211> 312
 <212> FRT
 <213> Homo sapiens

<400> 6040
 Xaa Gly Leu Ala Ile Leu Phe Ile His Ala Ala Ala Trp Ala Ser Glu
 1 5 10 15
 Gly Leu Leu Ala Val Leu Arg Ala Gly Pro Gly Pro Glu Ala Leu Leu

20 25 30
 Gln Val Trp Ala Ala Glu Ser Ala Leu Arg Gly Glu Pro Leu Trp Ala
 35 40 45
 Gln Asn Val Val Pro Glu Ala Glu Gly Glu Asp Asp Pro Ala Gly Glu
 50 55 60
 Ala Gln Ala Gly Arg Leu Pro Leu Leu Pro Cys Ala Arg Ala Tyr Val
 65 70 75 80
 Ser Pro Arg Ala Pro Phe Tyr Arg Pro Leu Ala Pro Glu Leu Arg Ala
 85 90 95
 Arg Gln Leu Glu Leu Gly Ala Glu His Ala Leu Leu Leu Asp Ala Ala
 100 105 110
 Gly Gln Val Phe Ser Trp Gly Gly Gly Arg His Gly Gln Leu Gly His
 115 120 125
 Gly Thr Leu Glu Ala Glu Leu Glu Pro Arg Leu Leu Glu Ala Leu Gln
 130 135 140
 Gly Leu Val Met Ala Glu Val Ala Ala Gly Gly Trp His Ser Val Cys
 145 150 155 160
 Val Ser Glu Thr Gly Asp Ile Tyr Ile Trp Gly Trp Asn Glu Ser Gly
 165 170 175
 Gln Leu Ala Leu Pro Thr Arg Asn Leu Ala Glu Asp Gly Glu Thr Val
 180 185 190
 Ala Arg Glu Ala Thr Glu Leu Asn Glu Asp Gly Ser Gln Val Lys Arg
 195 200 205
 Thr Gly Gly Ala Glu Asp Gly Ala Pro Ala Pro Phe Ile Ala Val Gln
 210 215 220
 Pro Phe Pro Ala Leu Leu Asp Leu Pro Met Gly Ser Asp Ala Val Lys
 225 230 235 240
 Ala Ser Cys Gly Ser Arg His Thr Ala Val Val Thr Arg Thr Gly Glu
 245 250 255
 Leu Tyr Thr Trp Gly Tyr Gly Lys Tyr Gly Gln Leu Gly His Glu Asp
 260 265 270
 Thr Thr Ser Leu Asp Arg Pro Arg Arg Val Glu Tyr Phe Val Asp Lys
 275 280 285
 Gln Leu Gln Val Lys Ala Val Thr Cys Gly Pro Trp Asn Thr Tyr Val
 290 295 300
 Tyr Ala Val Glu Lys Gly Lys Ser
 305 310

<210> 6041

<211> 291

<212> DNA

<213> Homo sapiens

<400> 6041

acycgtgaag gggaagaaag agaacgtctg caaaaggagg aagagaaacg taggagagaa
 60
 gaagaggaaa ggcttcgacg ggaggaagag gaaaggagac ggatagaaga agaaaggctt
 120
 cggttgagc agcaaaagca gcagataatg gcagctttaa acteccagac tgcgtgcag
 180
 ttccagcagt atgcagccca acagtatcca gggaactacg aacagcagca aattctcatc
 240
 cgcagttgc aggagcaaca ctatcagcag tacatgcagc agttgtatca c
 291

<210> 6042
 <211> 97
 <212> PRT
 <213> Homo sapiens

<400> 6042
 Thr Arg Glu Gly Glu Glu Arg Glu Arg Leu Gln Lys Glu Glu Glu Lys
 1 5 10 15
 Arg Arg Arg Glu Glu Glu Glu Arg Leu Arg Arg Glu Glu Glu Arg
 20 25 30
 Arg Arg Ile Glu Glu Glu Arg Leu Glu Gln Gln Lys Gln Gln
 35 40 45
 Ile Met Ala Ala Leu Asn Ser Gln Thr Ala Val Gln Phe Gln Gln Tyr
 50 55 60
 Ala Ala Gln Gln Tyr Pro Gly Asn Tyr Glu Gln Gln Gln Ile Leu Ile
 65 70 75 80
 Arg Gln Leu Gln Glu Gln His Tyr Gln Gln Tyr Met Gln Gln Leu Tyr
 85 90 95
 His

<210> 6043
 <211> 558
 <212> DNA
 <213> Homo sapiens

<400> 6043
 tttttttttt tttttttttt ttgacattc aaacacaagc tttaatagga gatatacagg
 60
 cacagggttg agggaggggg ttgctccagg gaattctgaa tgtccaggt catgcagaag
 120
 ttcaagggtgt cttgtacaac ccactgggga aacaggatct gggaccggtg cgggcacatt
 180
 ctccctggccc agcacagggg cgggtgccacc cacattcggc cgggtcttg cctaatacat
 240
 gttttggttaa acaactcggtc agagaccctc ctgttttttc cagtcgccga gctccccgca
 300
 ggaatccaca cccccgcccc acccctctcg ggacacggat tcaatgtccc tgggtgggtca
 360
 tctggccttt tcggcctgtg atgtgattcg agcggtgcta tctttaacct cgggcagggg
 420
 tgtttctccc cgtcgacgtt gctcagataa cagtcctgca attccatggg ggtgcgggca
 480
 ccgggggtct ggcaaaagcat aggggcctgc ttgtgtcccc tgctgctgcc ccaagtagtc
 540
 agaggaggat gtgaattc
 558

<210> 6044
 <211> 152
 <212> PRT
 <213> Homo sapiens

<400> 6044

```

Met Leu Cys Gln Thr Pro Gly Ala Ala Thr Pro Met Glu Leu Gln Asp
 1                               5                               10                               15
Cys Tyr Leu Ser Asn Val Asp Gly Gly Glu His Pro Cys Pro Arg Leu
                               20                               25                               30
Lys Ile Ala Pro Leu Glu Ser His His Arg Pro Lys Arg Pro Asp Asp
                               35                               40                               45
Pro Pro Gly Thr Leu Asn Pro Cys Pro Glu Arg Gly Gly Ala Gly Val
 50                               55                               60
Trp Ile Pro Ala Gly Ser Phe Gly Thr Gly Lys Asn Arg Gly Cys Ser
 65                               70                               75                               80
Asp Arg Val Phe Thr Lys Thr Cys Ile Arg Gln Asp Pro Gly Arg Met
                               85                               90                               95
Trp Val Ala Pro Pro Leu Cys Trp Ala Arg Arg Met Cys Pro His Arg
                               100                              105                              110
Ser Gln Ile Leu Phe Pro Gln Trp Val Val Gln Asp Thr Leu Asn Phe
                               115                              120                              125
Cys Met Asn Trp Asp Ile Gln Asn Ser Leu Glu Gln Pro Pro Pro Ser
 130                              135                              140
Thr Leu Cys Leu Asp Ile Ser Tyr
145                              150

```

<210> 6045

<211> 1916

<212> DNA

<213> Homo sapiens

<400> 6045

```

acgcgtgtcg agacgcactt ccagccccgc gccgctggcg aaggtggccc ctacggctgc
 60
aaggacgctc tgcgccagca gctccgctcg gccgagagg tgattgcagt ggcatggac
120
gtgttcacag acatcgacat cttcagagac ctgcaagaaa tatgcaggaa acagggagtt
180
gctgtgtata tccttctgga ccaggctctc ctctctcaat ttctggatat gtgcatggat
240
ctgaaagttc atcctgaaca ggaagagtta atgacagttc ggactatcac aggaataatc
300
tactatgcaa ggtcaggaaac taagattatt ggaagagttc acgaaaagtt cactgtgatt
360
gatggcatcc gcgtggcaac aggcctctac agttttacat ggaaggatgg caaattaaac
420
agcagtaact tggttaattct gtctggccaa gtggttgaac actttgatct ggagttccga
480
atcctgtatg ccagtcctaa gcccatcagc cccaaactcc tgtctcactt ccagagcagc
540
aacaagtgtg atcacctcac caaccgaaaa ccacagtcca aggagctcac cctgggcaac
600
ctgctgcgga tgcggctggc taggctgtca agtactccca ggaaggcgga cctggaccga
660
gagatgcgcc cagagggcaa ggcagagcgc aagccccatg actgtgagtc ctctactgtt
720
agtgagggaag actacttcag cagccacagg gacgagctcc agagcagaaa ggccattgac
780

```

gctgccactc aaacagagcc aggagaggag atgccagggc tgagtgtgag tgagggtggga
 840
 acacaaacca gcataccacc agcatgtgct ggtaccaga ctgcagtcac caccaggata
 900
 gcaagctctc aaaccacgat ttgggtccaga tcgaccacta ctccagactga catggatgag
 960
 aacattctct ttctctgagg aactcaatct acagaagggc caccagtctc aaaaatgtct
 1020
 gtatcgagat ctccagttt gaagctcttc tctctgtgt ctcccaagg ctctgtggca
 1080
 agctccactg gttctccgc ttccatcaga accactgact tccacaatcc tggctatccc
 1140
 aagtaccttg gacccccca cctggaactg tacttgagtg actcacttag aaacttgaa
 1200
 aaagagcgcc aattccactt cgctgggtatc aggtccggc tcaaccacat gctggctatg
 1260
 ctgtcaagga gaacactctt tactgaaaac caccttggtc ttcattcttg caatttcagc
 1320
 agagttaatt tgctgtgtgt tagagatgta gcattttatc ctccctatca gtaactgtcc
 1380
 cggtttcaga ctctgggttt ctccagggt tacagtggac atcatcagct tctgtcttta
 1440
 aaaaatatct tatgtcccta attgccttct ttttacccta ctttgtcacc tttgtgtct
 1500
 ttgaattctt taggtgcac attattttac atgctttgtt ttgtcatgta tataccagg
 1560
 attggtttta tgggttaaac actatggata cagggtttg ttttgcaaa ttttaatatg
 1620
 catgcaactc ataagatgtt ttgtgtcaat gacagaccac gtatatgttg gcagctctcat
 1680
 aagattataa tactgtattt ttactatacc tttctgtgt ttagatacaa ataccattat
 1740
 gttacagttg cctacagtat tcagtgcagt aacatgatgt acaggtttgt agcctgtttt
 1800
 gcatttttct taggttgat gctcttctgt tttaaaggtt tgaatcaca gcattttgt
 1860
 gatcaaaatc ctatttagaa aaaataaaac tactttctgt ttaaaaaaaaa aacaaa
 1916

<210> 6046

<211> 457

<212> PRT

<213> Homo sapiens

<400> 6046

Thr Arg Val Glu Thr His Phe Gln Pro Arg Gly Ala Gly Glu Gly Gly
 1 5 10 15
 Pro Tyr Gly Cys Lys Asp Ala Leu Arg Gln Gln Leu Arg Ser Ala Arg
 20 25 30
 Glu Val Ile Ala Val Val Met Asp Val Phe Thr Asp Ile Asp Ile Phe
 35 40 45
 Arg Asp Leu Gln Glu Ile Cys Arg Lys Gln Gly Val Ala Val Tyr Ile
 50 55 60
 Leu Leu Asp Gln Ala Leu Leu Ser Gln Phe Leu Asp Met Cys Met Asp

65		70		75		80									
Leu	Lys	Val	His	Pro	Glu	Gln	Glu	Lys	Leu	Met	Thr	Val	Arg	Thr	Ile
				85					90					95	
Thr	Gly	Asn	Ile	Tyr	Tyr	Ala	Arg	Ser	Gly	Thr	Lys	Ile	Ile	Gly	Lys
				100				105					110		
Val	His	Glu	Lys	Phe	Thr	Leu	Ile	Asp	Gly	Ile	Arg	Val	Ala	Thr	Gly
				115				120				125			
Ser	Tyr	Ser	Phe	Thr	Trp	Thr	Asp	Gly	Lys	Leu	Asn	Ser	Ser	Asn	Leu
				130				135				140			
Val	Ile	Leu	Ser	Gly	Gln	Val	Val	Glu	His	Phe	Asp	Leu	Glu	Phe	Arg
				145				150			155			160	
Ile	Leu	Tyr	Ala	Gln	Ser	Lys	Pro	Ile	Ser	Pro	Lys	Leu	Leu	Ser	His
				165					170					175	
Phe	Gln	Ser	Ser	Asn	Lys	Phe	Asp	His	Leu	Thr	Asn	Arg	Lys	Pro	Gln
				180				185					190		
Ser	Lys	Glu	Leu	Thr	Leu	Gly	Asn	Leu	Leu	Arg	Met	Arg	Leu	Ala	Arg
				195				200				205			
Leu	Ser	Ser	Thr	Pro	Arg	Lys	Ala	Asp	Leu	Asp	Pro	Glu	Met	Pro	Ala
				210				215				220			
Glu	Gly	Lys	Ala	Glu	Arg	Lys	Pro	His	Asp	Cys	Glu	Ser	Ser	Thr	Val
				225				230			235			240	
Ser	Glu	Glu	Asp	Tyr	Phe	Ser	Ser	His	Arg	Asp	Glu	Leu	Gln	Ser	Arg
				245					250				255		
Lys	Ala	Ile	Asp	Ala	Ala	Thr	Gln	Thr	Glu	Pro	Gly	Glu	Glu	Met	Pro
				260				265					270		
Gly	Leu	Ser	Val	Ser	Glu	Val	Gly	Thr	Gln	Thr	Ser	Ile	Thr	Thr	Ala
				275				280				285			
Cys	Ala	Gly	Thr	Gln	Thr	Ala	Val	Ile	Thr	Arg	Ile	Ala	Ser	Ser	Gln
				290				295			300				
Thr	Thr	Ile	Trp	Ser	Arg	Ser	Thr	Thr	Thr	Gln	Thr	Asp	Met	Asp	Glu
				305				310			315			320	
Asn	Ile	Leu	Phe	Pro	Arg	Gly	Thr	Gln	Ser	Thr	Glu	Gly	Ser	Pro	Val
				325				330					335		
Ser	Lys	Met	Ser	Val	Ser	Arg	Ser	Ser	Ser	Leu	Lys	Ser	Ser	Ser	Ser
				340				345					350		
Val	Ser	Ser	Gln	Gly	Ser	Val	Ala	Ser	Ser	Thr	Gly	Ser	Pro	Ala	Ser
				355				360				365			
Ile	Arg	Thr	Thr	Asp	Phe	His	Asn	Pro	Gly	Tyr	Pro	Lys	Tyr	Leu	Gly
				370				375			380				
Thr	Pro	His	Leu	Glu	Leu	Tyr	Leu	Ser	Asp	Ser	Leu	Arg	Asn	Leu	Asn
				385				390			395			400	
Lys	Glu	Arg	Gln	Phe	His	Phe	Ala	Gly	Ile	Arg	Ser	Arg	Leu	Asn	His
				405				410					415		
Met	Leu	Ala	Met	Leu	Ser	Arg	Arg	Thr	Leu	Phe	Thr	Glu	Asn	His	Leu
				420				425				430			
Gly	Leu	His	Ser	Gly	Asn	Phe	Ser	Arg	Val	Asn	Leu	Leu	Ala	Val	Arg
				435				440				445			
Asp	Val	Ala	Leu	Tyr	Pro	Ser	Tyr	Gln							
				450				455							

<210> 6047

<211> 773

<212> DNA

<213> Homo sapiens

```

<400> 6047
ggatcctgac ccccgagctt gcgcccctcg ggccctccat tcagtcccg gccgacagcg
60
ccaccgtgtg gccacagcgt ctccctagcgg cctccttacc taggggtcgg gtgagctcct
120
gatgggaaat gggggatctc atcgcttggt agtagaggag actttggggg gaaagtgatg
180
gaggatgggg caagggatcc ggtgtccaac tctgtgtgtc cctgcagctc ccgtagccca
240
gcagggaaga tgacctcttg gccccctaagc aggcggaagg caggtggccg ccgcccggagc
300
aatgggtgcaa acagctcttc tccagtgtgg tcccgtgtgt gctggggggac ccagaggagg
360
agccgggtgg gcggcagctc ctggacctca attgcttttt gtccgacatc tcggacactc
420
tcttcacat gactcagtc gccctctcgc cctgcagct gccgectgag gatgcctacg
480
tcggcaatgc tgacatgac cagccggacc tgacgccact gcagccaagc ctggatgact
540
tcattggacat ctacatttc ttaccacaa cccgcctccc acagccgcc atgccttcaa
600
acttcccaga gcccccaac ttacgccccg tggttgactc cctcttcagc agtggggccc
660
tgggccaga ggtgcccccg gcttctctcg ccatgacca cctctctgga cacagccgtc
720
tgagggtcgc gaacagctgc cctgcccctg tgcctgtac taaatgaatt gcg
773

```

<210> 6048

<211> 129

<212> PRT

<213> Homo sapiens

<400> 6048

```

Met Val Lys Arg Val Ser Glu Met Ser Asp Lys Lys Gln Leu Arg Ser
1 5 10 15
Arg Ser Cys Arg Pro Pro Gly Ser Ser Ser Gly Ser Pro Ser Ser Thr
20 25 30
Gly Thr Thr Leu Glu Lys Ser Cys Leu His His Cys Ser Gly Gly Gly
35 40 45
His Leu Pro Ser Ala Cys Leu Gly Ala Arg Arg Ser Ser Ser Leu Leu
50 55 60
Gly Tyr Gly Ser Cys Arg Asp Thr Gln Ser Trp Thr Pro Asp Pro Leu
65 70 75 80
Pro His Pro Pro Ser Leu Ser Pro Gln Ser Leu Leu Tyr Ser Gln Ala
85 90 95
Met Arg Ser Pro Ile Ser His Gln Glu Leu Thr Arg Pro Leu Gly Lys
100 105 110
Glu Ala Ala Arg Arg Cys Gly His Thr Val Ala Leu Ser Ala Arg
115 120 125

```

Asp

<210> 6049

<211> 479

<212> DNA

<213> Homo sapiens

<400> 6049

accggtttttt cttccccag tccctcagct gctgctgctg ctcaggaggt cagatctgcc
 60
 actgatggta ataccagcac cactccgccc acctctgccca agaagagaaa gttaaacagc
 120
 agcagcagta gcagcagtaa cagtagtaac gagagagaag actttgattc cacctcttcc
 180
 tcctcttcca ctctctcttt acaaccagc gattcggcat ccccttcaac ctgctccttc
 240
 tgcttggggg tttcagtggc tgcttccagc cactgaccga tacagaagaa gctgctgttt
 300
 gaagacaccc tggagtttgt aggggtttgat gcgaagatgg ctgaggaatc ctctcctcc
 360
 tcctctctcat cttcaccaac tgctgcaaca tctcaggagc agcaacttaa aaataagagt
 420
 atattaatct cttctgtggg ttcggtgcat catgcagacg ggctagccga atcttctac
 479

<210> 6050

<211> 159

<212> PRT

<213> Homo sapiens

<400> 6050

Thr	Gly	Phe	Ser	Ser	Pro	Ser	Pro	Ser	Ala	Ala	Ala	Ala	Gln	Glu
1			5					10					15	
Val	Arg	Ser	Ala	Thr	Asp	Gly	Asn	Thr	Ser	Thr	Thr	Pro	Pro	Ser
			20				25					30		
Ala	Lys	Lys	Arg	Lys	Leu	Asn	Ser	Ser	Ser	Ser	Ser	Ser	Asn	Ser
			35				40					45		
Ser	Asn	Glu	Arg	Glu	Asp	Phe	Asp	Ser	Thr	Ser	Ser	Ser	Ser	Thr
			50				55				60			
Pro	Pro	Leu	Gln	Pro	Arg	Asp	Ser	Ala	Ser	Pro	Ser	Thr	Ser	Phe
			70							75			80	
Cys	Leu	Gly	Val	Ser	Val	Ala	Ala	Ser	Ser	His	Val	Pro	Ile	Gln
			85							90			95	
Lys	Leu	Arg	Phe	Glu	Asp	Thr	Leu	Glu	Phe	Val	Gly	Phe	Asp	Lys
			100					105				110		
Met	Ala	Glu	Glu	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Pro	Thr	Ala
			115				120					125		
Ala	Thr	Ser	Gln	Glu	Gln	Gln	Leu	Lys	Asn	Lys	Ser	Ile	Leu	Ile
			130				135				140			
Ser	Val	Gly	Ser	Val	His	His	Ala	Asp	Gly	Leu	Ala	Glu	Ser	Ser
			145				150					155		

<210> 6051

<211> 2404

<212> DNA

<213> Homo sapiens

<400> 6051
attaacaatg gaagtataa aggaatcag caagagaaag aaaggtctgt ggatttaaac
60
ttcttccat cggttgatcc tgaacagtt ctcagacag ggcaggaatt gttgtccgaa
120
ttacagcagc gtcgatttaa tggctcagac ggaggggttt catggtctcc tatggatgat
180
gaacttcttg cacagccaca ggttatgaaa ttattagatt cactccgaga gcaatatacc
240
cgctaccagg aagttttagt gcaacgtagc aagcgacac agttagaaga gattcaacag
300
aaggtaatgc aggtggtgaa ctggctagaa gggcctggat cagaacaact aagagcccag
360
tggggcattg gagactccat tagggcctcc caggccctac agcagaaaca cgaagagatt
420
gagagccagc acagtgaatg gtttgcatgt tatgtggaac ttaatcagca aattcgagca
480
ctcttgaatg ctggcgatga ggaagatctt gtggaactaa agtcactgca gcaacaactt
540
agtgtatgtt gttatcgaca ggcagtcag ctggaattta ggcaaatct cttacaagca
600
gtctctgaat ttcatggtgt tgcccaagat ttgtctcagc agttggatgg cttattaggg
660
atgttgtgcg tagatgtagc accagctgat gtagcatcga ttcagcaaac tttaaaactg
720
cttgaagaga agctgaaaag tgttgatgtg ggattgcaag gtttgctgta aaaaggtcaa
780
ggctctcttg atcagatctc caatcaggca tccnntgggc ctatggaaag gatgntaacc
840
attgaaaata aagaaaatgt ggaccacata caaggagtga tggagatat gcagcttaga
900
aaacaaagat gtgaagacat ggtagatgtg cgaagggtta agatgcttca gatggtgcag
960
ttgtttaaat gtgaagaaga tgcctgccaag gcagtagaat ggctaagtga actcttggat
1020
gtctctgcta agactcacat cagattgggc gatgatgctc aagaaacgaa agtttctgctg
1080
gaaaagcata gaaaatttgt tgatgttgca cagagcactt atgactatgg caggcagttg
1140
ctacaggcca cagttgtgtt atgccagctt ttgcgctgca cttctcggtc atctctggat
1200
acacttctc gactgaacag agtatggaaa caatttaca tagcatctga agagagagta
1260
catagattgg aaatggctat tgcatttcac tcaaatgctg aaaagatttt gcaggactgt
1320
ccagaagagc ctgaagctat taatgatgag gagcaatttg atgaaattga agcagttggg
1380
aaatcacttt tggatagatt aactgttcca gtatgttata ctgatggaa cgaacaatat
1440
tttgggagtc caagtgcacat ggcttctact gcagaaaaa tcagagacag gatgaaacta
1500
gttaatctca aaaggcagca gctgagacat cctgaaatgg tgaccacaga gagctaatag
1560

ctaccagcta cctacagatt tgcagttcat aatcccgcat gttgtcaaca tactacagca
 1620
 ttagccacca cacottaaga tgcatttcac agccaaaata agtctcattt cttttcatga
 1680
 cacattttctc tttacatggt aacaccttgc tactaccaag gcataattac ttaacatgct
 1740
 tcgaggctgt agattccaag tatcttaaaa gaaggaaact taaacattgc actgaaaact
 1800
 tgcctttaag cttttacctga cctgtcagtt tgtagacaaa caactgataa taagccttga
 1860
 atgggtgctaa taagagtagg aattctctct attaaaaaga aaaaaaaag ttgcccttcc
 1920
 tccacaggtg atttagtaaa tttagacagt agttaaaact ttgttagtag acagtgggtg
 1980
 cctcaaaatt ttacttttga attcttcaga attgattatt ttatttgtgt caatacagag
 2040
 aaagccttcc agatccttga tatatcatag tcattaaaag accttttccct atttgtattg
 2100
 ataagtattt aaaagttggt tgtgcttaat aaaagacttc ttaaacatc ttattttaatt
 2160
 tagtagttac atcctatttc caaacatgag tgccttattt aaaagggcat tcttaggact
 2220
 gtgaggatgg tttaatattt gttttttcat ggtggttgca tgtatttttag acaggaataa
 2280
 catatgtaag catgtgtata taataaataa gcattgttta tcatgaaaaa ttattgtgaa
 2340
 caatttagat ctttaagaac ttattaataa tggaatacta tttctaattg ttctcttttt
 2400
 caac
 2404

<210> 6052

<211> 518

<212> PRT

<213> Homo sapiens

<400> 6052

Ile	Asn	Asn	Gly	Ser	Asp	Lys	Gly	Asn	Gln	Gln	Glu	Lys	Glu	Arg	Ser
1				5				10						15	
Val	Asp	Leu	Asn	Phe	Leu	Pro	Ser	Val	Asp	Pro	Glu	Thr	Val	Leu	Gln
			20					25						30	
Thr	Gly	His	Glu	Leu	Leu	Ser	Glu	Leu	Gln	Gln	Arg	Arg	Phe	Asn	Gly
			35					40					45		
Ser	Asp	Gly	Gly	Val	Ser	Trp	Ser	Pro	Met	Asp	Asp	Glu	Leu	Leu	Ala
		50				55				60					
Gln	Pro	Gln	Val	Met	Lys	Leu	Leu	Asp	Ser	Leu	Arg	Glu	Gln	Tyr	Thr
				70						75				80	
Arg	Tyr	Gln	Glu	Val	Cys	Arg	Gln	Arg	Ser	Lys	Arg	Thr	Gln	Leu	Glu
				85					90				95		
Glu	Ile	Gln	Gln	Lys	Val	Met	Gln	Val	Val	Asn	Trp	Leu	Glu	Gly	Pro
			100					105					110		
Gly	Ser	Glu	Gln	Leu	Arg	Ala	Gln	Trp	Gly	Ile	Gly	Asp	Ser	Ile	Arg
		115					120					125			
Ala	Ser	Gln	Ala	Leu	Gln	Gln	Lys	His	Glu	Glu	Ile	Glu	Ser	Gln	His

130 135 140
 Ser Glu Trp Phe Ala Val Tyr Val Glu Leu Asn Gln Gln Ile Ala Ala
 145 150 155 160
 Leu Leu Asn Ala Gly Asp Glu Glu Asp Leu Val Glu Leu Lys Ser Leu
 165 170 175
 Gln Gln Gln Leu Ser Asp Val Cys Tyr Arg Gln Ala Ser Gln Leu Glu
 180 185 190
 Phe Arg Gln Asn Leu Leu Gln Ala Ala Leu Glu Phe His Gly Val Ala
 195 200 205
 Gln Asp Leu Ser Gln Gln Leu Asp Gly Leu Leu Gly Met Leu Cys Val
 210 215 220
 Asp Val Ala Pro Ala Asp Gly Ala Ser Ile Gln Gln Thr Leu Lys Leu
 225 230 235 240
 Leu Glu Glu Lys Leu Lys Ser Val Asp Val Gly Leu Gln Gly Leu Arg
 245 250 255
 Glu Lys Gly Gln Gly Leu Leu Asp Gln Ile Ser Asn Gln Ala Ser Xaa
 260 265 270
 Gly Pro Met Glu Arg Met Xaa Thr Ile Glu Asn Lys Gln Asn Val Asp
 275 280 285
 His Ile Gln Gly Val Met Glu Asp Met Gln Leu Arg Lys Gln Arg Cys
 290 295 300
 Glu Asp Met Val Asp Val Arg Arg Leu Lys Met Leu Gln Met Val Gln
 305 310 315 320
 Leu Phe Lys Cys Glu Glu Asp Ala Ala Lys Ala Val Glu Trp Leu Ser
 325 330 335
 Glu Leu Leu Asp Ala Leu Leu Lys Thr His Ile Arg Leu Gly Asp Asp
 340 345 350
 Ala Gln Glu Thr Lys Val Leu Leu Glu Lys His Arg Lys Phe Val Asp
 355 360 365
 Val Ala Gln Ser Thr Tyr Asp Tyr Gly Arg Gln Leu Leu Gln Ala Thr
 370 375 380
 Val Val Leu Cys Gln Ser Leu Arg Cys Thr Ser Arg Ser Ser Gly Asp
 385 390 395 400
 Thr Leu Pro Arg Leu Asn Arg Val Trp Lys Gln Phe Thr Ile Ala Ser
 405 410 415
 Glu Glu Arg Val His Arg Leu Glu Met Ala Ile Ala Phe His Ser Asn
 420 425 430
 Ala Glu Lys Ile Leu Gln Asp Cys Pro Glu Glu Pro Glu Ala Ile Asn
 435 440 445
 Asp Glu Glu Gln Phe Asp Glu Ile Glu Ala Val Gly Lys Ser Leu Leu
 450 455 460
 Asp Arg Leu Thr Val Pro Val Val Tyr Pro Asp Gly Thr Glu Gln Tyr
 465 470 475 480
 Phe Gly Ser Pro Ser Asp Met Ala Ser Thr Ala Glu Asn Ile Arg Asp
 485 490 495
 Arg Met Lys Leu Val Asn Leu Lys Arg Gln Gln Leu Arg His Pro Glu
 500 505 510
 Met Val Thr Thr Glu Ser
 515

<210> 6053

<211> 3257

<212> DNA

<213> Homo sapiens

<400> 6053
nnngggccct tgtcaggagg agacagcctc ccggcccggg gaggacaagt cgctgccacc
60
tttggctgcc gacgtgattc cctgggacgg tccgtttcct gccctcagct gccggccgag
120
ttgggtctcc gtgggttcagg ccggctcccc ctccctggtc tcccttctcc cgctggggcg
180
gtttatcggg aggagattgt cttccagggc tagcaattgg acttttgatg atgtttgacc
240
cagcggcagg aatagcaggc aacgtgattt caaagctggg ctcagcctct gtttcttctc
300
tcgtgtaatc gcaaaaccca ttttgagca ggaattccaa tcatgtctgt gatgggtggg
360
agaaagaagg tgacacggaa atgggagaaa ctcccaggca ggaacacctt ttgctgtgat
420
ggccgcgtca tgatggcccg gcaaaagggc attttctacc tgacctttt cctcatcctg
480
gggacatgta cactcttctt cgcctttgag tgcgcctacc tggctgttca gctgtctcct
540
gccatccctg tatttgctgc catgctcttc cttttctcca tggctacact gttgaggacc
600
agcttcagtg accctggagt gattcctcgg gcgctaccag atgaagcagc ttctcatagaa
660
atggagatag aagctaccaa tgggtcggtg ccccgaggcc agagaccacc gcctcgtatc
720
aagaatttcc agataacaa ccagattgtg aaactgaaat actgttacac atgcaagatc
780
ttccggcctc cccgggcctc ccattgcagc atctgtgaca actgtgtgga gcgcttcgac
840
catcactgcc cctgggtggg gaattgtgtt ggaaagagga actaccgcta cttctacctc
900
ttcctccttt ctctctccct cctcacaatc tatgtcttcg ccttcaacat cgtctatgtg
960
gcctcaaat ctttgaaat tggcttcttg gagacattga aagaaactcc tggaaactgtt
1020
ctagaagtcc tcatttgctt ctttacactc tgggtccgtg tgggactgac tggatttcat
1080
actttctctg tggctctcaa ccagacaacc aatgaagaca tcaaaggatc atggacaggg
1140
aagaaatcgc tccagaatcc ctacagccat ggcaatatg tgaagaactg ctgtgaagtg
1200
ctgtgtggcc ccttgccccc cagtgtgctg gatcgaaggg gtattttgcc actggaggaa
1260
agtggaaatc gacctccag tactcaagag accagtga caaccttgcc acagagccca
1320
gccccacag aacacctgaa ctcaaatgag atgccggagg acagcagcac tcccgaaagag
1380
atgccacctc cagagccccc agagccacca caggaggcag ctgaagctga gaagtgcct
1440
atctatggaa gagacttttg tttgtgttta attagggcta tgagagattt caggtgagaa
1500
gttaaactcg agacagagag caagtaagct gtccttttta actgtttttc tttgtctttt
1560

agtcacccag ttgcacactg gcattttctt gctgcaagct tttttaaat tctgaactca
1620
aggcagtggt agaagatgtc agtcacctct gataactgga aaaatgggtc tcttggggccc
1680
tggcactggt tctccatggc ctccagccaca ggggtcccctt ggaccccctc tcttcccctcc
1740
agatcccagc cctcctgctt ggggtcactg gtctcattct ggggctaaaa gtttttgaga
1800
ctggctcaaa tcttcccaag ctgtgcacg tgtgagtc agaggcagtc acagagacct
1860
ctggccaggg gatccctaact ggggtcttgg ggtcttcagg actgaagagg agggagagtg
1920
gggtcagaag attctcctgg ccaccaagt ccagcattgc ccacaaatcc ttttaggaat
1980
gggacaggta ccttccactt gttgtattta ttagttagc ttctcctttg tctccatcc
2040
actctgacac ctaagcccca ctcttttccc attagatata tgtaagtagt tgtagtagag
2100
ataataattg acatttctcg tagactaccc agaaactttt ttaataacctg tgccattctc
2160
aataagaatt tatgagatgc cagcggcata gcccttcaca ctctctgtct catctctcct
2220
cctttctcat tagccctttt taatttgttt ttccttttga ctctctgtcc cattaggagc
2280
agggaatggc gtaataaaaag tctgcacttt ggtcatttct tttctcaga ggaagcctga
2340
gtgctcactt aaacactatc ccctcagact ccctgtgtga ggccctgcaga ggccctgaat
2400
gcacaaatgg gaaaccaagg cacagagagg ctctctcttc ctctcctctc ccccgatgta
2460
ccctcaaaaa aaaaaaaaaa gctaaccagt tcttccatta agcctcggtc gagtggggga
2520
aagcccgaca ctgctgccct ctggggtaac tcaccctaag gcctcgcccc acctctgggt
2580
atggtaacca cactgggggc ttctccaag ccccgctctt ccagcacttc caccggcaga
2640
gtcccagagc cacttcaccc tgggggtggg ctgtggcccc cagtgcagtc tgcctaggac
2700
ctgctctatt tcagggaaga agatttatgt attatatgtg gtatatattc cttaggcacc
2760
tgtgttttcc totttctaag ccagggtcct gtctggatga cttatgcggt gggggagtg
2820
aaacgggaac ttttcatcta ttgaaggcg attaaactgt gtctaagca aacttcttcg
2880
ctcctccttc cccctccat ttcaagaata tgtttgtgtg taggggtggg gtgggggttg
2940
gaagggttg cttgttactc cccaaacttc cattaaccag ggcacccttg ggttgagag
3000
gtagtcccaa actctccatt gatctatact acattctggg ctgaagggtt tcttattctg
3060
gactatgaag aaaggacttt caaggagata tagtgtgaac aggatcagga aggtagaggg
3120
attatatatta ctaagagaa caagctctat attaggatat tgttttgaag cagatggatg
3180

ccggttaattg ctaataagtc ttagttatta acgcaggctc atcagggccc ccccttgggg

3240

aaatatttga tcagtgg

3257

<210> 6054

<211> 382

<212> PRT

<213> Homo sapiens

<400> 6054

```

Leu Phe Leu Leu Ser Cys Asn Arg Lys Thr His Phe Gly Ala Gly Ile
 1              5              10              15
Pro Ile Met Ser Val Met Val Val Arg Lys Lys Val Thr Arg Lys Trp
      20              25              30
Glu Lys Leu Pro Gly Arg Asn Thr Phe Cys Cys Asp Gly Arg Val Met
      35              40              45
Met Ala Arg Gln Lys Gly Ile Phe Tyr Leu Thr Leu Phe Leu Ile Leu
      50              55              60
Gly Thr Cys Thr Leu Phe Phe Ala Phe Glu Cys Arg Tyr Leu Ala Val
      65              70              75              80
Gln Leu Ser Pro Ala Ile Pro Val Phe Ala Ala Met Leu Phe Leu Phe
      85              90              95
Ser Met Ala Thr Leu Leu Arg Thr Ser Phe Ser Asp Pro Gly Val Ile
      100             105             110
Pro Arg Ala Leu Pro Asp Glu Ala Ala Phe Ile Glu Met Glu Ile Glu
      115             120             125
Ala Thr Asn Gly Ala Val Pro Gln Gly Gln Arg Pro Pro Arg Ile
      130             135             140
Lys Asn Phe Gln Ile Asn Asn Gln Ile Val Lys Leu Lys Tyr Cys Tyr
      145             150             155             160
Thr Cys Lys Ile Phe Arg Pro Pro Arg Ala Ser His Cys Ser Ile Cys
      165             170             175
Asp Asn Cys Val Glu Arg Phe Asp His His Cys Pro Trp Val Gly Asn
      180             185             190
Cys Val Gly Lys Arg Asn Tyr Arg Tyr Phe Tyr Leu Phe Ile Leu Ser
      195             200             205
Leu Ser Leu Leu Thr Ile Tyr Val Phe Ala Phe Asn Ile Val Tyr Val
      210             215             220
Ala Leu Lys Ser Leu Lys Ile Gly Phe Leu Glu Thr Leu Lys Glu Thr
      225             230             235             240
Pro Gly Thr Val Leu Glu Val Leu Ile Cys Phe Phe Thr Leu Trp Ser
      245             250             255
Val Val Gly Leu Thr Gly Phe His Thr Phe Leu Val Ala Leu Asn Gln
      260             265             270
Thr Thr Asn Glu Asp Ile Lys Gly Ser Trp Thr Gly Lys Asn Arg Val
      275             280             285
Gln Asn Pro Tyr Ser His Gly Asn Ile Val Lys Asn Cys Cys Glu Val
      290             295             300
Leu Cys Gly Pro Leu Pro Pro Ser Val Leu Asp Arg Arg Gly Ile Leu
      305             310             315             320
Pro Leu Glu Glu Ser Gly Ser Arg Pro Pro Ser Thr Gln Glu Thr Ser
      325             330             335
Ser Ser Leu Leu Pro Gln Ser Pro Ala Pro Thr Glu His Leu Asn Ser

```

```

          340          345          350
Asn Glu Met Pro Glu Asp Ser Ser Thr Pro Glu Glu Met Pro Pro Pro
    355          360          365
Glu Pro Pro Glu Pro Pro Gln Glu Ala Ala Glu Ala Glu Lys
    370          375          380

<210> 6055
<211> 2089
<212> DNA
<213> Homo sapiens

<400> 6055
nnggcggggg cggagagagg cgagcacogg gaaggggagc gtggggccgc tggaatgggt
60
gaatttaagg cccatcgagt acgtttcttt aattatgttc catcaggaat ccgctgtgtg
120
gcttacaata accagtcaaa cagattggct gtttcacgaa cagatggcac tgtggaaatt
180
tataacttgt cagcaaaacta ctttcaggag aaatttttcc caggtcatga gtctcgggct
240
acagaagcct tgtgctgggc agaaggacag cgactcttta gtgctgggct caatggcgag
300
attatggagt atgatttaca ggcgttaaac atcaagtatg ctatggatgc ctttgaggga
360
cctatttgga gcatggtgc cagccccagt ggctctcaac ttttggttgg ttgtgaagat
420
ggatctgtga aactatttca aattaccca gacaaaatcc agtttgaaag aaattttgat
480
cggcagaaaa gtgcatacct gagtctcagc tggcatccct ctggtaccca cattgcagct
540
ggttccatag actacattag tgtgtttgat gtcaaatcag gcagcgctgt tcataagatg
600
attgtggaca ggcagtatat gggcgtgtct aagcggaaat gcatcgtgtg ggggtgcgcc
660
tccttgtccg atggcactat cataagtgtg gactctgctg ggaaggtgca gttctgggac
720
tcagccactg ggaacgttgt gaagagccat ctcatcgcta atgctgacgt gcagtcacatt
780
gctgtagctg accaagaaga cagtttctgt gtgggcacag cgagggaaaca gtcttccatt
840
ttcagctggg ccctgtgaca tctaacagca gtgagaagca gtgggtgcgg acaaaaccgt
900
tcaagcatca cactcatgac gtgcgcactg tggcccacag cccaacagcg ctgatattcg
960
gaggcactga caccacttta gtctttcgtc ctctcatgga gaaggtggaa gtaaaagaatt
1020
acgatgcgcg tctccgaaaa atcaccttcc cccaccgatg tctcatctcc tgttctaaaa
1080
agaggcagct tctcctcttc cagtttgcct atcacttaga actttggcga ctgggatcca
1140
cagttgcaac aggcaagaat ggggatactc ttccactctc taaaaatgca gatcatttac
1200
tgcaactaaa gacaaagggg cctgagaaca ttatctgtag ctgtatctcc ccattgtggaa
1260

```


gttgatagc ctattctaca gttctcggg ttttctcta tcggctgaat tatgaacatg
 1320
 acaacataag cctcaaaagg gtttccaaa tggcagcatt ccttcgctct gcccttcaga
 1380
 ttttgttttc tgaagattca acaaagctct ttgtagcatc aaatcaagga gctctgcata
 1440
 ttgttcagct gtcaggagga agcttcaagc acctgcagtc ttccagcct cagtgcaggaa
 1500
 cagtggaggc catgtgtctt ttggcagtc gccagatgg gaattggcta gctgcacatg
 1560
 gtaccagtgc tggagtccat gctacaacg taaaacagct aaagcttacc tgcacgggtgc
 1620
 ctgcttaca tttccagtg actgctatgg ctattgcccc caataccaac aacctgtctc
 1680
 tcgctcatc ggaccagcag gtatttgagt acagcatccc agacaaacag tatcacagatt
 1740
 ggagccggac tgtccagaag cagggtcttc accaccttg gctccaaagg gatactccta
 1800
 tcacacacat cagttttcat cccaagagac cgatgcacat ccttctccat gatgcctaca
 1860
 tgtttctgcat cattgacaag tcattgcccc ttccaaatga caaacctta ctctacatc
 1920
 cattctctcc cagcaatgac atcattgctc agctcccacc acccattaaa aagaagaaat
 1980
 ttggaacctt aaacagggca ctgtctgtgt ccttctctga actgtctacc ctgttgcttt
 2040
 tcacaaatca tggtaataaa acaagttatt ctggaaaaa aaaaaaaaaa
 2089

<210> 6056

<211> 285

<212> PRT

<213> Homo sapiens

<400> 6056

Xaa Ala Gly Ala Glu Arg Gly Glu His Arg Glu Gly Glu Arg Gly Ala
 1 5 10 15
 Ala Gly Met Gly Glu Phe Lys Ala His Arg Val Arg Phe Phe Asn Tyr
 20 25 30
 Val Pro Ser Gly Ile Arg Cys Val Ala Tyr Asn Asn Gln Ser Asn Arg
 35 40 45
 Leu Ala Val Ser Arg Thr Asp Gly Thr Val Glu Ile Tyr Asn Leu Ser
 50 55 60
 Ala Asn Tyr Phe Gln Glu Lys Phe Phe Pro Gly His Glu Ser Arg Ala
 65 70 75 80
 Thr Glu Ala Leu Cys Trp Ala Glu Gly Gln Arg Leu Phe Ser Ala Gly
 85 90 95
 Leu Asn Gly Glu Ile Met Glu Tyr Asp Leu Gln Ala Leu Asn Ile Lys
 100 105 110
 Tyr Ala Met Asp Ala Phe Gly Gly Pro Ile Trp Ser Met Ala Ala Ser
 115 120 125
 Pro Ser Gly Ser Gln Leu Leu Val Gly Cys Glu Asp Gly Ser Val Lys
 130 135 140
 Leu Phe Gln Ile Thr Pro Asp Lys Ile Gln Phe Glu Arg Asn Phe Asp

```

145          150          155          160
Arg Gln Lys Ser Arg Ile Leu Ser Leu Ser Trp His Pro Ser Gly Thr
          165          170          175
His Ile Ala Ala Gly Ser Ile Asp Tyr Ile Ser Val Phe Asp Val Lys
          180          185          190
Ser Gly Ser Ala Val His Lys Met Ile Val Asp Arg Gln Tyr Met Gly
          195          200          205
Val Ser Lys Arg Lys Cys Ile Val Trp Gly Val Ala Phe Leu Ser Asp
          210          215          220
Gly Thr Ile Ile Ser Val Asp Ser Ala Gly Lys Val Gln Phe Trp Asp
          225          230          235
Ser Ala Thr Gly Thr Leu Val Lys Ser His Leu Ile Ala Asn Ala Asp
          245          250          255
Val Gln Ser Ile Ala Val Ala Asp Gln Glu Asp Ser Phe Val Val Gly
          260          265          270
Thr Ala Arg Glu Gln Ser Ser Ile Phe Ser Trp Ser Leu
          275          280          285

```

<210> 6057

<211> 3924

<212> DNA

<213> Homo sapiens

<400> 6057

```

tgacataaac atcaagtatt ttgctctaa gattataatc ttacataag ttagaatata
60
tttaaacata agggggagct aaaagcaaat gggggtaaac aaaccagaaa atcaaaaaata
120
caaatataca cagagccaaa atagtatttc cgtcagcagc aaacagaaa caattccaaa
180
attaatgtgc aaatgaaaat aaagtagtta acagtcattc atttaataag cttgtgtatt
240
tgataatgaa aacgetttagc ttcccttttc tgacctcgga aaagtaatca ccattcttag
300
taagggtatta cttttaaaag tatgacttta acaagtgaat aaagcatggt tagagtatgt
360
ttatgtttag aaacaatacc ttgaacacta cagaaaacaa caatattctg aaaaccagtc
420
tcattttcca tgcgtgggac agatccagtc agtgtgatca ggtttttctg atgtgtaata
480
atttatcaaa ataagttttc tcacaagact cttttccatc aactctgaaa accctgatct
540
gacaacatac cccaataaag ctctggacaa gcacctccta aagcttggaa gaaaatgtgc
600
caagtccttt cctgtaacat ttactgcact acaaatggct aaagagcaat ttatggttta
660
aaaggtgaat agtacaacag gtgagttcag gaaattgttt tagtgcactt tgcctcagtt
720
ttagccaaca tgetacattt tccttttttg tttttgttt gttgtgtgtg tttttgggg
780
gaaggagagg gagaccgac aaagtggact tgaggatttc cattgtacga aaaagatatg
840
actctgcaag caaaacagtg taagctgcct tttttcttaa gacctggaca ttttaagaca
900

```

gaaactttgc aaacattac acaatTTTT attattaaat gagaaaatct catttgttac
960
atcgtcacat tgctagtcag agaatgttg cagtgatgaa gaaagtcaat gttggacca
1020
ccaagtcct cattcctaca acattcattt acaagaaaat aatgttcaac acagcccaac
1080
aaaacattct tgggttttctt catattgaag tccccaaaaaatctctctc taatggggta
1140
ttcaactaca taaattatag ttcttcattt ttacaattca ccccaactg tatgagagat
1200
gtatcacact aagatttcta aagctgttag gaaatccttc acacatcgtc gtcactcgat
1260
gtatcacatg tacttgtctc tgtgtcatca ttctcagttg tgggtttgaa agtctgttc
1320
ttccacggtc caaactgaa gtcacagatc aagccatttt tcaaaatacc attttttctc
1380
agaccattct tctgtaactg ttactaata acttgggaatt ctctcatttc atctcagtt
1440
aaggggagcac atgtttcatc attttcactg tcttctgccc agccatttc ctttaacaat
1500
ctgtgttctg cctcaagtga acttgaaaga acatcagttt tggggaagg tgaagaccga
1560
atgatctgct gggaaatcac tgaggcattg ccattctctt gaggaatttc attttcatcg
1620
aagtttcggg ttatatccct ttcttgggta gtactattgc tgttatgtaa attaaatgag
1680
tcgtcatcct tctctgagcc agcacggctt tcactctcat gttcctcttc tactctgtct
1740
cttttcaatg ctttcaaaaa ttcactcttc ttatcagtcg gcattctgtg cagtttggtt
1800
agacgaggct gctgattaag ttgtcaaca ggagaagagg aatttgagcg attacactct
1860
ttcaactgaat ttgtagatgg actaaagttc ttggcagttg atttaaaagc attaaagttg
1920
ccaacgcaa atgtggactc atgagggaaa gaagttccaa ctttattttc ttttgtttgg
1980
cttttcatt gtgtaggttt tgtagggtga gcagcaggtt tagggactaa accttataa
2040
acacttggac cagttccatt ctttaactggc tgtgacggaa gatttcctac tactgggaat
2100
ccagatagct gtaagtcttt tgtattacct ttcttaatga ccagcatcct tggagctcta
2160
gatttaggat tcggaggata ttctaagaga ggagcttggg agattttttt ggttgggtat
2220
gtgtgtgtct gggcgtgtag gccccacaca cctgcagcta aagacttatt gtgatttgg
2280
tctctctcat actcaggatt taaagacgga aaatcctcag cttcaaaactg ttgcgttct
2340
ctcttgtctt ctttctctcc ggtttcattg tcaggatatg tgttttcattg tagtctcttg
2400
cttttccctg catggaaaaat actgtcatga gaacgggaac ttccaccatg gtatccacct
2460
cgatgattta tgttttctgt accatttctt ccattgtgac gccatccatt tttttcttcc
2520

cttccaaagt tacctccatt aggacgtcca atagcagaat caaagccatc tgaagagttg
2580
tgtcgtcgac ggttcacatc ataacgattc tctgtccatg caaagttttc agaagcttc
2640
tcaaaattca atgacgattt caaactgctg gtcaggacct ttgttgatga tgggtggagta
2700
gggaaattaa gccaggctgg agcaaaagtc tgcgtcgcca tttaggtcca gtctctccaa
2760
ctcagtgaat caaggettca acacctcatg gcaagtccea taatagtact tacaatttc
2820
aacaggactg cacaggaagg tgttggtttt ttctctgtaa tctttatttt ccagtttgta
2880
tttttatttt gtatcctctg aaataatcgc gaagtctctt gaagatactt aacctacgac
2940
tatttgacat agagttactt caagtcagct acccatactt ctgttttaaa gttttcatat
3000
ggctatctcc cgaattagcc aagtctctta gatttaagat caaagtcttc tttattattc
3060
catgtacttg ccactgttgt actgtgccac tccagatgaa atatccaatt tacgagccaa
3120
aaagcaaaaa caaaaagaaa atttcacatc tgaagagcat tcctaaacat cagcatatac
3180
agagacacac atagctatct caatactacc atgctgccgg aaaactgcaa catcttaaat
3240
ttccacgtaa ataaaagata aaaggaaaaa aactctgtat tctttcaatc tcttcattca
3300
gaaaaagtgt ccatttgtga catgaaagag ctgaagtcaa aaattcctaa aactttcaat
3360
aaaggtaaaa ataaactgcc atgaaacttc agcaatactc agtcatttga aactgctgaa
3420
actactcagt acacaaatca acgtctctca gtttcggctg aagaacccca acaacggggg
3480
gggggaaggg gaggcacaaa ttaccaccag ctgaaatact gtaaccagtt atataatccg
3540
ttgaaccaa aatactgaag aaatgctgcc tgggtctctt ttaagtagc ttgctgaatt
3600
gtcactact atcaattcac ttccagacg attcttgcca attttaataa acttctgggg
3660
caaaattatc caaaaacact gtaaatccaa aatggccact taaaatatcc agggcccttt
3720
acacaaaacc tagatgatga tcttcatatc tgagtaattc aatcaccttc tgccccacca
3780
gaggtgcccc tggcctgggg gtgcgcgcgc gcctgatccc gggagaaggt ttctcggtact
3840
ttgaataate cctttttgcc gctttttcct cccccacaac cagctctcagt cccaaaatgg
3900
cgccgaccgc atccgcaatg ttct
3924

<210> 6058

<211> 500

<212> PRT

<213> Homo sapiens

<400> 6058

```

Met Ala Gln His Asp Phe Ala Pro Ala Trp Leu Asn Phe Pro Thr Pro
1      5      10      15
Pro Ser Ser Thr Lys Val Leu Thr Ser Ser Leu Lys Ser Ser Leu Asn
20      25      30
Phe Glu Lys His Ser Glu Asn Phe Ala Trp Thr Glu Asn Arg Tyr Asp
35      40      45
Val Asn Arg Arg Arg His Asn Ser Ser Asp Gly Phe Asp Ser Ala Ile
50      55      60
Gly Arg Pro Asn Gly Gly Asn Phe Gly Arg Lys Glu Lys Asn Gly Trp
65      70      75      80
Arg Thr His Gly Arg Asn Gly Thr Glu Asn Ile Asn His Arg Gly Gly
85      90      95
Tyr His Gly Gly Ser Ser Arg Ser Arg Ser Ile Phe His Ala Gly
100     105     110
Lys Ser Gln Gly Leu His Glu Asn Asn Ile Pro Asp Asn Glu Thr Gly
115     120     125
Arg Lys Glu Asp Lys Arg Glu Arg Lys Gln Phe Glu Ala Glu Asp Phe
130     135     140
Pro Ser Leu Asn Pro Glu Tyr Glu Arg Glu Pro Asn His Asn Lys Ser
145     150     155     160
Leu Ala Ala Gly Val Trp Gly Leu His Ala Gln Thr His Thr Tyr Pro
165     170     175
Thr Lys Lys Ile Ser Gln Ala Pro Leu Leu Glu Tyr Pro Pro Asn Pro
180     185     190
Lys Ser Arg Ala Pro Arg Met Leu Val Ile Lys Lys Gly Asn Thr Lys
195     200     205
Asp Leu Gln Leu Ser Gly Phe Pro Val Val Gly Asn Leu Pro Ser Gln
210     215     220
Pro Val Lys Asn Gly Thr Gly Pro Ser Val Tyr Lys Gly Leu Val Pro
225     230     235     240
Lys Pro Ala Ala Pro Pro Thr Lys Pro Thr Gln Trp Lys Ser Gln Thr
245     250     255
Lys Glu Asn Lys Val Gly Thr Ser Phe Pro His Glu Ser Thr Phe Gly
260     265     270
Val Gly Asn Phe Asn Ala Phe Lys Ser Thr Ala Lys Asn Phe Ser Pro
275     280     285
Ser Thr Asn Ser Val Lys Glu Cys Asn Arg Ser Asn Ser Ser Ser Pro
290     295     300
Val Asp Lys Leu Asn Gln Gln Pro Arg Leu Thr Lys Leu Thr Arg Met
305     310     315     320
Arg Thr Asp Lys Lys Ser Glu Phe Leu Lys Ala Leu Lys Arg Asp Arg
325     330     335
Val Glu Glu Glu His Glu Asp Glu Ser Arg Ala Gly Ser Glu Lys Asp
340     345     350
Asp Asp Ser Phe Asn Leu His Asn Ser Asn Ser Thr His Gln Glu Arg
355     360     365
Asp Ile Asn Arg Asn Phe Asp Glu Asn Glu Ile Pro Gln Glu Asn Gly
370     375     380
Asn Ala Ser Val Ile Ser Gln Gln Ile Ile Arg Ser Ser Thr Phe Pro
385     390     395     400
Gln Thr Asp Val Leu Ser Ser Ser Leu Glu Ala Glu His Arg Leu Leu
405     410     415
Lys Glu Met Gly Trp Gln Glu Asp Ser Glu Asn Asp Glu Thr Cys Ala

```

```

          420          425          430
Pro Leu Thr Glu Asp Glu Met Arg Glu Phe Gln Val Ile Ser Glu Gln
          435          440          445
Leu Gln Lys Asn Gly Leu Arg Lys Asn Gly Ile Leu Lys Asn Gly Leu
          450          455          460
Ile Cys Asp Phe Lys Phe Gly Pro Trp Lys Asn Ser Thr Phe Lys Pro
465          470          475          480
Thr Thr Glu Asn Asp Asp Thr Glu Thr Ser Ser Ser Asp Thr Ser Asp
          485          490          495
Asp Asp Asp Val
          500

```

<210> 6059

<211> 1442

<212> DNA

<213> Homo sapiens

<400> 6059

```

aatgcattga gaactcacia ttttccatgt gttatgcata tgttacatac tttatgtcat
60
ttaaatgtaa tgattttctt taaagtaatt taaacactac tgaaaacaca ggaactactt
120
ttaagcttaa acataacat attatacttt acaagggctt tatccacttg actgtaaaatt
180
gtatttgatg ctgagctatt cattaaattt aattcagctc cagtaagagt attcaataaa
240
caaacattga ttgctttcct atcttacatt tttttaggag tgcgaataaa gtgagtcac
300
atgaattggg aaaatgagag ctcccaaaa gagtttatac tacttggtt ctcagatagg
360
gcttggtcac aaatgccctt ttttgtggtc ctgttaatat catacacaat caccatattt
420
ggcaatgtgt ccatcatgat ggtgtgcatt ctggatccca aacttcatac tcccatgtat
480
ttctttctca ctaatctctc catcttagat ctctgctata ccacaactac agtccctcat
540
atgttggtaa atattggttg caacaaaaag accatcagct atgctggctg tgtggccccc
600
ctcatcatct tcctggccct aggtgctaca gagtgtctcc ttctggctgt tatgtccttt
660
gacagatatg tggtgttttg cagacccttc cactatgtag tcatcatgaa ttattggttc
720
tgctaagga tggcagcctt ctcatggctc attgggtttcg gcaactcagt gctgcagctc
780
tccttgactc ttaacatgcc acgctgtggt caccaggaag tggaccactt ttctgtgag
840
gtgcctgcac ttctcaagtt gtcatgtgct gacacaaagc ctattgaggc tgagctcttc
900
ttcttttagt tactaattct tctaattcca gtgacattga tcctcatctc ctatggcttc
960
atagctcaag cagtattaaa aatcaggctc gcagaaggac ggcaaaaagc atttgggaca
1020
tgtgggtccc acatgattgt ggtgtccctc ttttatggaa cagccattta tatgtatctt
1080

```

caaccacctt catccacctc taaggactgg ggaaagatgg ttccctctt ctatggaatc
 1140
 atcacatoca tggtagaactc cctcatctac agccttagaa ataaagatat gaaggaggcc
 1200
 ttcaagaggc tgatgccaa aatctttttc tgaagaat aagaagtact ccattgtgat
 1260
 gagaatcttc ttagtcttcc cttatcttca atgatggtaa tgaccttga actcattttc
 1320
 ctattttcca ggctctgggtg atttcaactaa attetgtcaa caattagaaa atccttcctc
 1380
 tggtaggtgg gcgcgggtgt tcacgcctgt aatcccagta ctttgtgggg gccaaaggtg
 1440
 gc
 1442

<210> 6060

<211> 313

<212> PRT

<213> Homo sapiens

<400> 6060

Met Asn Trp Glu Asn Glu Ser Ser Pro Lys Glu Phe Ile Leu Leu Gly
 1 5 10 15
 Phe Ser Asp Arg Ala Trp Leu Gln Met Pro Leu Phe Val Val Leu Leu
 20 25 30
 Ile Ser Tyr Thr Ile Thr Ile Phe Gly Asn Val Ser Ile Met Met Val
 35 40 45
 Cys Ile Leu Asp Pro Lys Leu His Thr Pro Met Tyr Phe Phe Leu Thr
 50 55 60
 Asn Leu Ser Ile Leu Asp Leu Cys Tyr Thr Thr Thr Val Pro His
 65 70 75 80
 Met Leu Val Asn Ile Gly Cys Asn Lys Thr Thr Ile Ser Tyr Ala Gly
 85 90 95
 Cys Val Ala His Leu Ile Ile Phe Leu Ala Leu Gly Ala Thr Glu Cys
 100 105 110
 Leu Leu Leu Ala Val Met Ser Phe Asp Arg Tyr Val Ala Val Cys Arg
 115 120 125
 Pro Leu His Tyr Val Val Ile Met Asn Tyr Trp Phe Cys Leu Arg Met
 130 135 140
 Ala Ala Phe Ser Trp Leu Ile Gly Phe Gly Asn Ser Val Leu Gln Ser
 145 150 155 160
 Ser Leu Thr Leu Asn Met Pro Arg Cys Gly His Gln Glu Val Asp His
 165 170 175
 Phe Phe Cys Glu Val Pro Ala Leu Leu Lys Leu Ser Cys Ala Asp Thr
 180 185 190
 Lys Pro Ile Glu Ala Glu Leu Phe Phe Phe Ser Val Leu Ile Leu Leu
 195 200 205
 Ile Pro Val Thr Leu Ile Leu Ile Ser Tyr Gly Phe Ile Ala Gln Ala
 210 215 220
 Val Leu Lys Ile Arg Ser Ala Glu Gly Arg Gln Lys Ala Phe Gly Thr
 225 230 235 240
 Cys Gly Ser His Met Ile Val Val Ser Leu Phe Tyr Gly Thr Ala Ile
 245 250 255
 Tyr Met Tyr Leu Gln Pro Pro Ser Ser Thr Ser Lys Asp Trp Gly Lys

```

                260                265                270
Met Val Ser Leu Phe Tyr Gly Ile Ile Thr Ser Met Leu Asn Ser Leu
                275                280                285
Ile Tyr Ser Leu Arg Asn Lys Asp Met Lys Glu Ala Phe Lys Arg Leu
                290                295                300
Met Pro Arg Ile Phe Phe Cys Lys Lys
305                310

<210> 6061
<211> 1582
<212> DNA
<213> Homo sapiens

<400> 6061
nggcaggccc gcgccgcgc cggactttg ccatacggcg ggagtcgcy ggatgcgcc
60
gggagccaca gcctgaggcc ctacggtctc tgcagggtgc gtggaggaa ctagaccctg
120
ccatctctt ccccaatttg ccacttccag cagcttttag ccataggagg gatgtgaccg
180
ggactgagtc aggagccctc tgggaagcatg gagactgtgg tgattgttgc catagtggtg
240
ctggccacca tctttctggc ttggtttgca gccttggtgc tggtttgca gacgcgtac
300
tgccggcgcg gagacctgct gcagcgtat gattctaagc ccattgtgga cctcattggt
360
gccatggaga ccagctctga gccctctgag ttagaactgg acgatgtcgt tatcaccaac
420
cccacattg aggccattct ggagaatgaa gactggatcg aagatgcctc gggctctcatg
480
tcccactgca ttgccatctt gaagatttgt cacactctga cagagaagct tgttgccatg
540
acaatgggct ctggggccaa gatgaagact tcagccagtg tcagcagcat cattgtggtg
600
gccaagcgga tcagcccccag ggtggatgat gttgtgaagt cagtgatccc tccgttgga
660
cccaaaactc tggacgcagc gacgactgac ctgctcctgt ctgtcagtca cctggtgctg
720
gtgacaagga atgcctgcca tctgacggga ggcctggact ggattgacca gtctctgtcg
780
gtgctgagg agcatttgga agtcctctga gaagcagccc tagctcttga gccagataaa
840
ggcctcccag gccctgaagg ctctctgcag gacagctctg caatttagtg cctacaggcc
900
agcagctagc catgaaggcc cctgccgcca tcctggatg gctcagctta gccttctact
960
tttctctata gatttagttg ttctccacgg ctggagagtt cagctgtgtg tgcatagtaa
1020
agcaggagat ccccgctcag ttatgcctct ttgacgttg caaactgttg ctggtgagtg
1080
gcagctcaat actacagtta ggggagatgc cattcactct ctgcaagagg agtattgaaa
1140
actggtggac tgtcagcttt atttagctca cctagtgttt tcaagaaaat tgagccaccg
1200

```


tctaagaaat caagaggttt cacattaaaa ttagaatttc tggcctctct cgatcggtca
 1260
 gaatgtgtgg caattctgat ctgcattttc agaagaggac aatcaattga aactaagtag
 1320
 gggttttctt ttttggcaag acttgtactc tctcacctcg cctgtttcat ttatttgtat
 1380
 tatctgcctg gtccctgagg cgtctgggtc tctcctctcc ctgcaggtt tggggttgaa
 1440
 gctgaggaac tacaaagttg atgatttctt ttttatcttt atgcctgcaa ttttacctag
 1500
 ctaccactag gtggatagta aatttatact tatgtttcaa aaaaaaatca tcaactttgt
 1560
 agttcctcag cttcagtcga cg
 1582

<210> 6062

<211> 226

<212> PRT

<213> Homo sapiens

<400> 6062

Met Glu Thr Val Val Ile Val Ala Ile Gly Val Leu Ala Thr Ile Phe
 1 5 10 15
 Leu Ala Ser Phe Ala Ala Leu Val Leu Val Cys Arg Gln Arg Tyr Cys
 20 25 30
 Arg Pro Arg Asp Leu Leu Gln Arg Tyr Asp Ser Lys Pro Ile Val Asp
 35 40 45
 Leu Ile Gly Ala Met Glu Thr Gln Ser Glu Pro Ser Glu Leu Glu Leu
 50 55 60
 Asp Asp Val Val Ile Thr Asn Pro His Ile Glu Ala Ile Leu Glu Asn
 65 70 75 80
 Glu Asp Trp Ile Glu Asp Ala Ser Gly Leu Met Ser His Cys Ile Ala
 85 90 95
 Ile Leu Lys Ile Cys His Thr Leu Thr Glu Lys Leu Val Ala Met Thr
 100 105 110
 Met Gly Ser Gly Ala Lys Met Lys Thr Ser Ala Ser Val Ser Asp Ile
 115 120 125
 Ile Val Val Ala Lys Arg Ile Ser Pro Arg Val Asp Asp Val Val Lys
 130 135 140
 Ser Met Tyr Pro Pro Leu Asp Pro Lys Leu Leu Asp Ala Arg Thr Thr
 145 150 155 160
 Ala Leu Leu Leu Ser Val Ser His Leu Val Leu Val Thr Arg Asn Ala
 165 170 175
 Cys His Leu Thr Gly Gly Leu Asp Trp Ile Asp Gln Ser Leu Ser Ala
 180 185 190
 Ala Glu Glu His Leu Glu Val Leu Arg Glu Ala Ala Leu Ala Ser Glu
 195 200 205
 Pro Asp Lys Gly Leu Pro Gly Pro Glu Gly Phe Leu Gln Glu Gln Ser
 210 215 220
 Ala Ile
 225

<210> 6063

<211> 2286

<212> DNA

<213> Homo sapiens

<400> 6063

nnacgcgctga aggggtgccgg gtgcagttgc ggctccaggg ccatggcgga ggagcagggc
60
cgggaaacggg actcgggttcc caagccgtcg gtgctgttcc tccaccaga cctggggctg
120
ggcggcgctg agcggctggg gttggacgcg gcgctggcgc tgcaggcgcg cgggtgtagc
180
gtgaagatct ggacagcgca ctacgacccg ggccactgtt tcgcgagag cgcgagccta
240
ccggtgcgct gtgcgcggga ctggctgccg cgaggcctgg gctggggcgg ccgcgcggcc
300
gccgtctcg cctacgtgcg catggtttcc ctggcgctct acgtgctgtt cctcgcgcac
360
gaggagttcg acgtggtagt gtgcgaccag gtgtctgcct gtatccaggt gttcaggctg
420
gctagacggc ggaagaagat cctattttac tgtcacttcc cagatctgct tctcaccaag
480
agagattctt tctttaaacg actatacagg gccccaattg actggataga ggaatacacc
540
acaggcatgg cagactgcat cttagtcaac agccagttca cagctgctgt ttttaaggaa
600
acattcaagt ccctgtctca catagacct gatgtctctc atcatctctc aaatgtcacc
660
agctttgact cagttgttcc tgaannaagc tggatgacct agtccccaag gggaaaaaaa
720
ttcctgtgc tctccatcaa cagatacgaa aggaagaaaa atctgacttt ggcactggaa
780
gccctagtag agctgcgtgg aagattgaca tcccaagatt gggagagagt tcatctgac
840
gtggcaggtg gttatgacga gagagtcctg gagaatgtgg aacattatca ggaattgaag
900
aaaatggctc aacagtcga cttgggccag tatgtgacct tcttgaggct tttctcagac
960
aaacagaaaa tctccctcct ccacagctgc acgtgtgtgc ttacacacc aagcaatgag
1020
cactttggca ttgtccctct ggaagccatg tacatgcagt gccagtcac tgctgttaat
1080
tcgggtggac ccttggagtc cattgaccac agtgtcacag ggtttctgtg tgagcctgac
1140
ccggtgcact tctcagaagc aatagaaaag ttcatccgtg aaccttctct aaaagccacc
1200
atgggcctgg ctggaagagc cagagtgaag gaaaaatctt cccctgaagc atttacagaa
1260
cagctctacc gatattgtac caaactgctg gtataatcac attgttttta agatctccat
1320
taatgtcatt tttatggatt gtgacccag ttttgaaacc aaaaaagaaa cctagaatct
1380
aatgcagaag agatctttta aaaaataaac ttgagtcctg aatgtgagcc actttctcat
1440
ataccacacc tccctgtcca cttttcagaa aaaccatgtc ttttatgcta taatcattcc
1500

aaattttgcc agtgtaagt tacaaatgtg gtgtcattcc atgttcagca gagtatttta
 1560
 attatatattt ctccgggatta ttgctcttct gtctataaat ttggaatgat actgtgcctt
 1620
 aattgggttt catagttaa gtgtgtatca ttatcaaagt tgattaattt ggcttcatag
 1680
 tataatgaga gcagggtat ttagttccc agattcaatc caccgaagtg ttcactgtca
 1740
 tctgttaggg aatttttgtt tgtcctgtct ttgcttgat ccatagcgag agtgctctgt
 1800
 atttttttta agataatttg tatttttgca cactgagata taataaaagg tgtttatcat
 1860
 aaaaagaaa cagtattaga ttttggcttc cataatctat ttgggtattg ttacgaacat
 1920
 ggatagtaca accaaactgg aaatcagaac actagggtaa agtggatatt gaaatgaagc
 1980
 aagaatattg tcacacatgt gttgtgcatc ttgtttagggt tatatttctt aatgctatct
 2040
 aggtcattag ttttgttaat atttgtgttg tcttgaccaa gctcctacta agtataggac
 2100
 acaaatgttt tttatcttcc aaggcctggc tcaaatgcca ctgctgcaaa gctttctttg
 2160
 accctctggc cacctcccaa gccagaagtt atcttccccc tccatgtact ctagcccttt
 2220
 catgacactg gatattttcg tgacactgac ttatagttca ctgtttacct gggtgtgtcta
 2280
 acagca
 2286

<210> 6064

<211> 233

<212> PRT

<213> Homo sapiens

<400> 6064

Xaa	Arg	Val	Lys	Gly	Ala	Gly	Cys	Ser	Cys	Gly	Ser	Arg	Ala	Met	Ala
1				5				10					15		
Glu	Glu	Gln	Gly	Arg	Glu	Arg	Asp	Ser	Val	Pro	Lys	Pro	Ser	Val	Leu
		20					25					30			
Phe	Leu	His	Pro	Asp	Leu	Gly	Val	Gly	Gly	Ala	Glu	Arg	Leu	Val	Leu
		35				40					45				
Asp	Ala	Ala	Leu	Ala	Leu	Gln	Ala	Arg	Gly	Cys	Ser	Val	Lys	Ile	Trp
		50			55					60					
Thr	Ala	His	Tyr	Asp	Pro	Gly	His	Cys	Phe	Ala	Glu	Ser	Arg	Glu	Leu
65			70					75						80	
Pro	Val	Arg	Cys	Ala	Gly	Asp	Trp	Leu	Pro	Arg	Gly	Leu	Gly	Trp	Gly
		85					90					95			
Gly	Arg	Gly	Ala	Ala	Val	Cys	Ala	Tyr	Val	Arg	Met	Val	Phe	Leu	Ala
		100					105					110			
Leu	Tyr	Val	Leu	Phe	Leu	Ala	Asp	Glu	Glu	Phe	Asp	Val	Val	Val	Cys
		115			120						125				
Asp	Gln	Val	Ser	Ala	Cys	Ile	Pro	Val	Phe	Arg	Leu	Ala	Arg	Arg	Arg
	130				135						140				
Lys	Lys	Ile	Leu	Phe	Tyr	Cys	His	Phe	Pro	Asp	Leu	Leu	Leu	Thr	Lys

145		150		155		160
Arg	Asp	Ser	Phe	Leu	Lys	Arg
				Leu	Tyr	Arg
				Ala	Pro	Ile
				Asp	Trp	Ile
				170		175
Glu	Glu	Tyr	Thr	Thr	Gly	Met
					Ala	Asp
					Cys	Ile
					Leu	Val
					Asn	Ser
					Gln	
					185	190
Phe	Thr	Ala	Ala	Val	Phe	Lys
					Glu	Thr
					Phe	Lys
					Ser	Leu
					Ser	His
					Ile	
					205	
Asp	Pro	Asp	Val	Leu	Tyr	Pro
					Ser	Leu
					Asn	Val
					Thr	Ser
					Phe	Asp
					Ser	
					220	
Val	Val	Pro	Glu	Xaa	Ser	Trp
					Met	Thr
					230	
225						

<210> 6065

<211> 2084

<212> DNA

<213> Homo sapiens

<400> 6065

tgatcattta aatagatatg gatagtgata gaaatctgtg tgtgtgtttt ttaaggtatt
 60
 gccatcagag agtcagcaaa ggtagttgac caagctcaaa ggagagtgtt gagggaggtt
 120
 gatgaccttg actttttcat aggagatgaa gccatcgata aacctacata tgcatacaaa
 180
 tggccgattc gacatggaat cattgaagac tgggattctta tggaaaggtt catggagcaa
 240
 gtggttttta aatatcttcg agctgaacct gaggaccatt attttttaat ggggtaacta
 300
 tctccttctt gctgtaatca gtggccacca gaacctcccc ctccaacccc cgaataacaga
 360
 gagtatcttg cagaaattat gtttgaatca tttaacgtac caggactcta cattgcagtt
 420
 caggcagtg cggccttggc ggcactcttg acatctcgac aagtgggtga acgtacgtta
 480
 acggggatag tcaattgacag cggagatgga gtcacccatg ttatcccagt ggcagaagggt
 540
 tatgtaattg gaagctgcat caaacacatc cggattgcag gttagatatat tacgtatttc
 600
 attcaacagc tgctaaggga gaggggaggtg ggaatccctc ctgagcagtc actggagacc
 660
 gcaaaagcca ttaaggagaa atactgttac atttggcccc atatagtc aa ggaatttgcc
 720
 aagtatgatg tggatccccg gaagtggatc aaacagtaca cgggtatcaa tgcagtaaac
 780
 cagaagaagt ttgttataga cgttgggttac gaaagattcc tgggacctga aatatctttt
 840
 cacccgaggt ttgccaaccc agacttttat gagtccatct cagatgttgt tgatgaagta
 900
 atacagaact gccccatcga tgtgcggcgc ccgctgtata agaattgtcgt actctcagga
 960
 ggctccacca tgttcaggga ttccggacgc cgactcgaga gggatttgaa gagagtgggtg
 1020
 gatgctaggc tgaggctcag cgaggagctc agcggcgagg ggaatcaagc gaagcctgtg
 1080

gaggtccagg tgggtcacgca tcacatgcag cgctacgccc tgtggttcgg aggtcccatg
 1140
 ctggcctcga ctccccagtt ctttcaggtc tgccacacca agaaggacta tgaagagtac
 1200
 gggcccagca tctgccgcca caaccccgctc tttggagtca tgcctagtgc tctgcctgaa
 1260
 cgcgctgttc gatgggtgtca cgttggggaa caagtgtcct tcagaaccca gagaaggccg
 1320
 ccgttctgta aatagcgacg tcggtgttgc tgcccagcag cgtgcttgca ttgccggtgc
 1380
 atgaggcgcg ggcggggccc ttcagtaaaa gccatttacc cgtgtgccga ccgctgtctg
 1440
 ccagcctcct cctctccccg cctcctccac cctcgtcttc cctcctcctc cctcctccag
 1500
 ctgctagctg acaaatataca ttctgaagga atccaaatgt gactttgaaa attgttagag
 1560
 aaaaacaacat tagaaaaatgg cgcaaaatcg ttagggtccca ggagagaatg tggggggcgca
 1620
 aacccttttc ctcccagcct atttttgtaa ataaaatggt taaacttgaa atacaatatg
 1680
 atgtttatat ttctatcat tttgtatttt atggtatttg gtacaactgg ctgatactaa
 1740
 gacccaatag atattgatgt tatggagtgc tgtaatccaa agtttttaat tgtgaggcat
 1800
 gttctgatat gtttataggc aaacaaataa aacagcaaac ttttttgcca catgttttgc
 1860
 agaaaatgat tatactttat tggagtgaac tgaagtttga aactaaaca gtaatgatg
 1920
 agaattacta cagatacatg tatcttttag tttttttgtg ttgaactttc tggagctgtt
 1980
 ttatagaaga tgatggtttg ttgtcggtga gtgttggatg aaatacttcc ttgcaccatt
 2040
 gtaataaaaag ctgttagaat atttgtaaat atcaaaaaaa aaaa
 2084

<210> 6066

<211> 80

<212> PRT

<213> Homo sapiens

<400> 6066

Gly	Ile	Ala	Ile	Arg	Glu	Ser	Ala	Lys	Val	Val	Asp	Gln	Ala	Gln	Arg
1									5	10				15	
Arg	Val	Leu	Arg	Gly	Val	Asp	Asp	Leu	Asp	Phe	Phe	Ile	Gly	Asp	Glu
		20						25					30		
Ala	Ile	Asp	Lys	Pro	Thr	Tyr	Ala	Thr	Lys	Trp	Pro	Ile	Arg	His	Gly
		35					40					45			
Ile	Ile	Glu	Asp	Trp	Asp	Leu	Met	Glu	Arg	Phe	Met	Glu	Gln	Val	Val
	50				55					60					
Phe	Lys	Tyr	Leu	Arg	Ala	Glu	Pro	Glu	Asp	His	Tyr	Phe	Leu	Met	Gly
65					70					75				80	

<210> 6067

<211> 406

<212> DNA

<213> Homo sapiens

<400> 6067

```

aggcctggca aggtcctcat ccttcccacc acattgcacc ggtgcctctt ctgtggagtc
60
tccttgagct gactgcaccc ctcttctctgg gtagcggtag cctccccaca gcactgtgtg
120
aatatgctgg gcatggggcg gctcggggcca ctgctccctg gccaaacgga agcctgggag
180
ggcatggcca gtgctgggga catgcagggg gctcactgga acgactagcg gtcctcatcc
240
tcctagaact tacattccca gagagaaaaga gactcctggg aattataaga gtggagaaag
300
gactataata atcgcaacag ctaaacactct tccagctaac actgcatgct gggcactgtc
360
ccgagtacat gaccacccct acaataactcc tgcagagcgc acgcgt
406

```

<210> 6068

<211> 117

<212> PRT

<213> Homo sapiens

<400> 6068

```

Met Tyr Ser Gly Gln Cys Pro Ala Cys Ser Val Ser Trp Lys Ser Val
1           5           10           15
Ser Cys Cys Asp Tyr Tyr Ser Pro Phe Ser Thr Leu Ile Ile Pro Arg
20          25          30
Ser Leu Phe Leu Ser Gly Asn Val Ser Ser Arg Arg Met Arg Thr Ala
35          40          45
Ser Arg Ser Ser Glu Pro Pro Ala Cys Pro Arg His Trp Pro Cys Pro
50          55          60
Pro Gly Leu Pro Phe Gly Gln Gly Ala Val Ala Arg Ala Ala Pro Cys
65          70          75          80
Pro Ala Tyr Ser His Ser Ala Val Gly Arg Pro Pro Leu Pro Arg Lys
85          90          95
Arg Gly Ala Val Ser Ser Gly Arg Leu His Arg Arg Gly Thr Gly Ala
100         105         110
Met Trp Trp Trp Glu Gly
115

```

<210> 6069

<211> 456

<212> DNA

<213> Homo sapiens

<400> 6069

```

ngggaaggcc taaaaaatgt cattttttacc aactgtgtaa aggatgaaaa tgtcaagcag
60
atcatcccca tgggtcactga actgattggg agaagccacc gctaccaccg aaaagagaac
120
ctggagtact gtatcatggg cattgggggtc cccaacgtgg gcaagtcttc cctcatcaac
180

```

tccctccgga ggcagcacct caggaaaggg aaagccacca ggggtgggtgg cgagcctggg
 240
 atcaccagag ctgtgatgtc caaaattcag gtggagtctc caggggccag gccacgacgt
 300
 ctgtcaagag ctctgcaggc gtctggcacc tgcgcacctc tgtgtggctt ccggctgtgt
 360
 accacgcttc cctccctccc actcagtgtc cccgctgagc acccccgggg caggcactgc
 420
 cctgccctta ttccacagtc gtcatagtct ttgcgc
 456

<210> 6070
 <211> 148
 <212> PRT
 <213> Homo sapiens

<400> 6070
 Xaa Glu Gly Leu Lys Asn Val Ile Phe Thr Asn Cys Val Lys Asp Glu
 1 5 10 15
 Asn Val Lys Gln Ile Ile Pro Met Val Thr Glu Leu Ile Gly Arg Ser
 20 25 30
 His Arg Tyr His Arg Lys Glu Asn Leu Glu Tyr Cys Ile Met Val Ile
 35 40 45
 Gly Val Pro Asn Val Gly Lys Ser Ser Leu Ile Asn Ser Leu Arg Arg
 50 55 60
 Gln His Leu Arg Lys Gly Lys Ala Thr Arg Val Gly Gly Glu Pro Gly
 65 70 75 80
 Ile Thr Arg Ala Val Met Ser Lys Ile Gln Val Glu Ser Ser Gly Ala
 85 90 95
 Arg Pro Ser Thr Leu Ser Arg Ala Leu Gln Ala Ser Gly Thr Cys Arg
 100 105 110
 Pro Leu Cys Gly Phe Arg Leu Leu Thr Thr Leu Pro Ser Pro Pro Leu
 115 120 125
 Ser Val Pro Ala Glu His Pro Arg Gly Arg His Cys Pro Ala Leu Ile
 130 135 140
 Pro Gln Ser Ser
 145

<210> 6071
 <211> 2633
 <212> DNA
 <213> Homo sapiens

<400> 6071
 nctgaggcgg gtggcatggc ggagaaggat gacaccggag tttgacgaag aggtgggttt
 60
 tgagaattct ccactttacc aatacttaca ggaatctggga cacacagact ttgaatatg
 120
 ttcttctttt tcacacaaaa cagaaaaatg cacaacagag ggacaacaaa agcctcctac
 180
 aagagtctca ccaaaatacc tgggatatag taatcactca atgaatataa actgcactta
 240
 ctggcatgct caaggaatgg gctattaagc aaggatatct gttaaaagtg gctgaaacca
 300

tcaaaagttg gatttttttt tctcagtgca ataagaaaga tgacttactt cacaagttgg
360
atattggatt ccgactcgac tcattacata ccattcctgca acaggaagtc ctgttacaag
420
aggatgtgga gctgattgag ctacttgatc ccagttatcct gtctgcaggg caatctcaac
480
aacaggaaaa tggacacctt ccaacacttt gctccctggc aaccocctaat atttgggatc
540
tctcaatgct atttgccttc attagcttgc tcgttatgct tcccacttgg tggattgtgt
600
cttctcggtt ggtatgggga gtgattctat ttgtgtatct ggtcataaga gctttgagat
660
tatggaggac agccaaacta caagtgaacc taaaaaata cagcgttcat ttggaagata
720
tggccacaaa cagccgagct tttactaacc tcgtgagaaa agctttacgt ctcatcaag
780
aaaccgaagt gatttccaga ggatttacac tggtcagtgct tgcttgccca tttataaag
840
ctggacagca tccaagtcag catctcatcg gtcttcggaa agctgtctac cgaactctaa
900
gagccaaactt ccaagcagca aggctagcta cctatatat gctgaaaaac taccctctga
960
actctgagag tgacaatgta accaactaca tctgtgtggt gcctttttaa gagctggggc
1020
ttggacttag tgaagagcag atttcagaag aggaagcaca taactttaca gatgggttca
1080
gcctgcctgc attgaaggtt ttgttccaac tctgggtggc acagagtcca gagttcttca
1140
gacggttagc cctattactt tctacagcca attcacctcc tggggccctta ctactccag
1200
catttctgcc tcatcgtatc ttatctgatg tgaactcaag tctacctcat gctcattctg
1260
ctgttttga agagccttaag cgcagctatg agttctatcg gtactttgaa actcagcacc
1320
agtcagtacc gcagtgttta tccaaaactc aacagaagtc aagagaactg aataatgttc
1380
acacagcagt gcgtagcttg cagctccatc tgaaaagcatt actgaatgag gtaataatc
1440
ttgaagatga acttgaaaaa cttgttttga ctaagaaac acaagaacta gtgtcagagg
1500
cttatcccat cctagaacag aaattaaagt tgattcagcc ccacgttcaa gcaagcaaca
1560
attgctggga agagggcatt tctcaggtcg acaaaactgt acgaagaagt acagataaaa
1620
aaggcaagcc tgaatatgca tgtgaaaacc cacattgtac agtagtaact ttgaagcagc
1680
ctactctaca cattgcagac aaagatccaa tcccagagga gcaggaatta gaagcttatg
1740
tagatgatat agatattgat agtgatttca gaaaggatga tttttattac ttgtctcaag
1800
aagacaaaaga gagacagaag cgtgagcatg aagaatccaa gaggggtgctc caagaattaa
1860
aatctgtgct gggattttaa gcttcagagg cagaaggga gaagtggag caactcttat
1920

ttagtgatca tggtaagcac tgacttttaa gtaacagggt atttcaatgt aggggattct
 1980
 ttctttcttg aacctgaat gttatttttag ctgaagaatt cttgggggtt tataagggtc
 2040
 caccagtatg catagtactt tttcttctag atgctaate aatttgatta ataaaagagt
 2100
 aggaatgtaa tcacattgga aatatgaagt catacttttt tatgagttat ttaatttttt
 2160
 agtaaatgtg ttttagaatg ggcagtgagt tgaataattt gggatatattt aaatgttatt
 2220
 ttcaaattta gtgaatttga gattctcaac tctgtgtcc atatgtttaa atatttaaaa
 2280
 atacctcagt gaagcacaaa attaataact gtgctcacat tgaaaaaat ggcccaggcg
 2340
 cggcggcaca tgcttcta atcagcacgt tgggaagctg aggcgggttg atcatttgag
 2400
 gtccaggagt caagaccagc ctggccaaca tggcgaaacc ccactctcac taaaaatata
 2460
 aaaattaaca aggcattgtg gcgcgtgcct gtagtcccag ctactcgaga ggctgaggca
 2520
 ggagaatcac ttgaacccgg gaggcggagg ttctcagtgag ccaagatcac gccactgcac
 2580
 tccagcctgg gcaacagang ggagactcca tctcaaaaaa aaaaaaaaaa aa
 2633

<210> 6072
 <211> 76
 <212> PRT
 <213> Homo sapiens

<400> 6072
 Met Ala Gln Ala Arg Arg His Met Leu Val Ile Ser Ala Arg Trp Glu
 1 5 10 15
 Ala Glu Ala Gly Gly Ser Phe Glu Val Arg Ser Ser Arg Pro Ala Trp
 20 25 30
 Pro Thr Trp Arg Asn Pro Ile Ser Thr Lys Asn Thr Lys Ile Asn Lys
 35 40 45
 Ala Trp Trp Arg Val Pro Val Val Pro Ala Thr Arg Glu Ala Glu Ala
 50 55 60
 Gly Glu Ser Leu Glu Pro Gly Arg Arg Arg Phe Gln
 65 70 75

<210> 6073
 <211> 387
 <212> DNA
 <213> Homo sapiens

<400> 6073
 ntgtcactta agttgccacc tctgcataag agctctctga tcagaaagca gtttctttgt
 60
 tgaccccagc cagccttggc tctcgggttg ggaatacag tcacgggtatc catggagacc
 120
 tcttgagggt gagacggcg ttaaacctt ctcaggcagt ctgaggtggc cagagtctga
 180

agcaagcagc ctctatggag cgaggggagc aggtggggccc agcctgagcg gggcctctgc
 240
 acagccagct tteccccaca cctgtctcca gccagggcac ccacaggccc tttctctccc
 300
 aggatgaagc ctgtggggag cgtgaatgac atggccctgg atgccttcga cttggaccgg
 360
 atgaagcagg agatcctaga ggaggtg
 387

<210> 6074

<211> 69

<212> PRT

<213> Homo sapiens

<400> 6074

Ser Lys Gln Pro Leu Trp Ser Glu Gly Ser Arg Trp Ala Gln Pro Glu
 1 5 10 15
 Arg Gly Leu Cys Thr Ala Ser Phe Pro His Leu Ser Pro Ala Arg
 20 25 30
 Ala Pro Thr Gly Pro Phe Ser Pro Arg Met Lys Pro Ala Gly Ser Val
 35 40 45
 Asn Asp Met Ala Leu Asp Ala Phe Asp Leu Asp Arg Met Lys Gln Glu
 50 55 60
 Ile Leu Glu Glu Val
 65

<210> 6075

<211> 4668

<212> DNA

<213> Homo sapiens

<400> 6075

nnctaggacg cctcgctgag gctggcgggc tgctcactgc tccggcctgg ctcacctcta
 60
 gacggcaaga tgagtgagcc ataaacttct atccaattaa agtcactgtc tttttgaagt
 120
 ctctatcag catctggctg tactctaaca tatacaaata tgtttctggt tcaacatctc
 180
 ctgtgcacgg agaaagcaca ggcattgttc tcacaagtca caaactacta agttaaaatc
 240
 cttaacttct gggaatgttt tttaaaagga ggtgaaaatt ggttacaact ttacttttct
 300
 taccttggtta agatactcat aagcctctac atcatttcca ctgtgatagt ttccggatccc
 360
 ttgaagtaag tagagtotta gaaacagttac cttctctttc ccacaatttc tttttatgtg
 420
 gaccagtctc tgatgatatt ctccgtaaca atttttaaag catttctggg ccaagtgttaa
 480
 ttttttttct gcatcatcaa ggcattccag ctgttccagg cggaagtaac acccactat
 540
 atccagctgg aggaagcgcat agttatccac tgtgtccagg agctctctgc aacactcaca
 600
 gaaatatttg tcagcgtcca acagacatgg caaggctatt ccatattctt tctcttttcg
 660

gaaagctctg ccccttctcat gatatcccat agctaacata agggcctttc tttctgatgg
720
gggaattctg attgatctgc ctgtctgggt agctatgtct aagtaagggt tcatttctgg
780
atcccaccact gtctctgctg ctctcttttgc cagtattttct agtcctctct tggctcctcg
840
aatttgtttt tcttttagtt tggcctcatt ttgctcctct tcccttaact ggaagttttt
900
cctcgcgctc tcttcagatt gtttttagttc aagcaccatc gctttcacat tgtgagccac
960
gccttgtttct tcaagggttt tccctagttg tagttgcttc ttatttatga caattttgat
1020
ataatttttct tgaagtccaa aggttttcagc tattttggac ctacagttctc tgccagtgtat
1080
gtgcaatcgg gtctccaaca agtttttctc atcttttttt agtcttggtg gtaaaaacac
1140
ctcgattgta gcaattcccg ttgttctata attgtcattt cctgtttccac gctcaattgc
1200
cttgcaacgt atttcttcta ttaccttttc tacttctatt tcacagcatt ctagtctgtc
1260
agagctactgc tttagcaaggc ctttttttag tcttggtggg aaaaacacct cgattgtagc
1320
aattcccggt gttctataat tgtcatttcc tgttccacgc tcaattgcct tgcaacgtat
1380
ttcttctatt accttttcta cttcattttc acagcattct agtctgtcag agtactgctt
1440
agcaaggctc tttaatgcc aaccaacttt tttatttca tctgtatatg gaggtttcca
1500
aagttgaate ctgtcttccc ttaaaaaact ggtaaatatt gcttgaagat atttcttttg
1560
tgccatccct gcgccacgcc actcccgccg cgaccagcag agatggcaca aaagaaatat
1620
cttcaagcaa aattgaccga gtttttaagg gaagacagga ttcaactttg gaaacctcca
1680
tatactgaag aaaataaaga agttgggttg gccttaaagg accttgctaa gcagtactct
1740
gacagactag aatgctgtga aaatgaagta gaaaaggtaa tagaagaaat acgttgcaag
1800
gcaattgagc ttggaacagg aaatgacaat tatagaacaa cgggaattgc tacaatcgag
1860
gtgtttttac caccaagact aaaaaaagat agggaaaaact tgttgagagc ccgattgcac
1920
atcactggca gagaactgag gtccaaaata gctgaaacct ttggacttca agaaaattat
1980
atcaaaattg tcataataaa gaagcaacta caactaggga aaaccttgat agaacaaggc
2040
tggtctcaca atgtgaaagc gatggtgctt gaactaaaac aatctgaaga ggacgcgagg
2100
aaaaacttcc agttagagg aagaggagcaa aatgaggcca aactcaaaga aaaaacaaatt
2160
cagaggacca agagaggact agaaatactg gcaaaagag cagcagagac agtggtggat
2220
ccagaaatga cacogtactt agacatagct aaccagacag gcagatcaat cagaattccc
2280

ccatcagaaa gaaaagccct tatgttagct atgggatatc atgagaaggg cagagctttc
2340
ctgaaaagaa aagaatatgg aatagccttg ccatgtctgt tggacgctga caaatatttc
2400
tgtgagtgtt gcagagagct gctggacaca gtggataact atgccgtcct ccagctggat
2460
atagtgtggt gttacttccg cctggaacag ctggaatgcc ttgatgatgc agaaaaaaaa
2520
ttaaacttgg ccagaaaatg ctttaaaaat tgttacggag aaaatcatca gagactggtc
2580
cacataaaag gaaattgttg gaaagagaag gtactgtttc taagactcta cttacttcaa
2640
gggatccgaa actatcacag tggaaatgat gttagggctt atgagtatct taacaggcac
2700
gtcagctctt taaagagcta tatattgac catcaaaagt ggacaatttg ttgcagttgg
2760
ggtttactgc ccaggaagnc cgggttggc ctgagggcgt gtgatgggaa cgtggatcat
2820
gcggccactc atattaccaa ccgcagagag gaactggccc aaataaggaa ggaggaaaaa
2880
gagaagaaaa gacgccgcct cgagaacatc aggtttctga aagggatggg ctactccacg
2940
cacgcggccc agcagattct gctcagcaat cctcagatgt ggtggttaaa tgattccaat
3000
cctgaaacgg acaaccgtca agaaagtcc tcccaggaaa acattgaccg attggtgtac
3060
atgggttttg atgcactcgt ggcgaagct gcgctgagag tgttcagagg caacgtccag
3120
ctggccgccc agacccttgc tcacaacgga ggaagcctgc ctcccagct gccgctgtgc
3180
ccagaagact ctttgtcccc gccagccacg tcccccttg actccgcagg aacctctagt
3240
gcctcaacag acgaagacat ggagacagag gccgtcaatg agatactgga agacattcca
3300
gagcatgagg aagactatct tgactcaact ctggaagatg aagaaattat tattgcagag
3360
tacctatcct atgtagaaaa taggaagtca gcaacaaaga aaaactaaat aatgaacaga
3420
aatagcgccta attttctgct tataaatgct atcattatga aaaggctaata gcagctcttt
3480
ctgtttcttac tttttatctg aattacaagt cctctttggg tgtaggagggg ggtgggcagg
3540
ggacaagtcc aggaggggtc ccaggggcct catgcatggt ctcggggaag aagcttcttt
3600
tggcctggcg caagccgttc catctggctc ccaagtctgc gtccctaacc ccttccccag
3660
cttggtgttt taccccgaaa cagggaaggaa caggggtcct gtagaacagg ggtcctgggg
3720
aaggtgtcca gggcagggtc ctgggaaggg tgteccgact gcttctcttc cagctgtggc
3780
tccatctgcc cagcttgctt gcctcctgca cccactgccc tgaccttctt gcttccccag
3840
ctgccatctc tgccagggtg ccacatgggt tcctgtgcca ccttttcccc gccctccaaa
3900

tcgtccttta agtcttcctt ccaagtgtctg tggggcataa cgtagaggcg ctggcccttg
 3960
 gggcacacca ggtcgcagca aatggcttca gcctgggacg ccagtgtttt atgctcttag
 4020
 ttccagtaaaa tacgcccccg aaattcaaga ttgagtgtca ggctttatat atattcagca
 4080
 ttcttcatta cagaaatctt ctattgaatg ggaaaggttt aaatgctaac caaagcaatt
 4140
 tatttttaat taatatTTTT agactctgtg ctgtcatact gaactcactg ctagctaaga
 4200
 gacctatcag agatttagat atattttctc cagggttttt gtgggttttc ttgtgtgtg
 4260
 ttgtgtgtct agccatgtga cagaggctct ttctaaaagt atgtagttcg ctgtgtgtcg
 4320
 gctccagcag taacogtctt cactgcgcga cgcactctct ttagatgtg tgcccagtg
 4380
 gagtctcttc cagccccagg accgcagcag cagccaggtg ccgagtggat tgagtccag
 4440
 gtgcattcaa gactttccct ccttccaga aggcaactgac tgaagacagg atggatcatg
 4500
 cggagccggc tgaatatgctc caactttttc aaagtgtggg tgggtccagt tggaactgat
 4560
 ggaattctct tgtcattctt tttaaacgga tgataccgat ggaataaaaa ggtgggaat
 4620
 atattcaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaa
 4658

<210> 6076

<211> 601

<212> PRT

<213> Homo sapiens

<400> 6076

Met	Ala	Gln	Lys	Lys	Tyr	Leu	Gln	Ala	Lys	Leu	Thr	Gln	Phe	Leu	Arg
1				5					10					15	
Glu	Asp	Arg	Ile	Gln	Leu	Trp	Lys	Pro	Pro	Tyr	Thr	Glu	Glu	Asn	Lys
		20						25					30		
Glu	Val	Gly	Leu	Ala	Leu	Lys	Asp	Leu	Ala	Lys	Gln	Tyr	Ser	Asp	Arg
		35				40					45				
Leu	Glu	Cys	Cys	Glu	Asn	Glu	Val	Glu	Lys	Val	Ile	Glu	Glu	Ile	Arg
		50			55					60					
Cys	Lys	Ala	Ile	Glu	Arg	Gly	Thr	Gly	Asn	Asp	Asn	Tyr	Arg	Thr	Thr
		65		70				75						80	
Gly	Ile	Ala	Thr	Ile	Glu	Val	Phe	Leu	Pro	Pro	Arg	Leu	Lys	Lys	Asp
		85						90						95	
Arg	Lys	Asn	Leu	Leu	Glu	Thr	Arg	Leu	His	Ile	Thr	Gly	Arg	Glu	Leu
		100						105					110		
Arg	Ser	Lys	Ile	Ala	Glu	Thr	Phe	Gly	Leu	Gln	Glu	Asn	Tyr	Ile	Lys
		115					120					125			
Ile	Val	Ile	Asn	Lys	Lys	Gln	Leu	Gln	Leu	Gly	Lys	Thr	Leu	Glu	Glu
		130				135					140				
Gln	Gly	Val	Ala	His	Asn	Val	Lys	Ala	Met	Val	Leu	Glu	Leu	Lys	Gln
		145			150					155				160	
Ser	Glu	Glu	Asp	Ala	Arg	Lys	Asn	Phe	Gln	Leu	Glu	Glu	Glu	Glu	Gln

[illegible]

595

600

<210> 6077
<211> 2093
<212> DNA
<213> Homo sapiens

<400> 6077
cgcccgggca ggtctcccg aagtggccgg tccagagctg tggggtgcct ccgcgcggtc
60
tctggcggat cggggaatcg gatcaaggcg agaggatccg gcagggaagg agcttcgggg
120
ccggggggttg ggcgcacat ttacgtgcgc gaagcggagg accgggagct ggtgacgatg
180
gcggggccgc agcccttggc gctgcaactg gaacagtgtg tgaaccgcgc accaagcgag
240
gcggaccctg aagcggaccc cagggaagcc actgctgccg gggtgattga caggtttgat
300
gaagggaag atggggaagg tgatttctta gtagtgggta gcattagaaa actggcatca
360
gcctccctct tggacacgga caaaagggtat tgcggcaaaa ccacctctag aaaagcatgg
420
aatgaagacc attgggagca gactctgccg gtagctgtctg ataggaaat atctgatgag
480
gaagggtctg gagatgaaga ttacagagga ctgggtctg aggaatatga tgaggacgac
540
ctgggtgctg ctgaggaaca ggagtgtggt gatcaggagg agcaagaaga cgagaagcca
600
ctctgcaaaa acacggggct tcagtgtcca gagtatcagt gactttgaga aatttaccaa
660
gggaatggat gacctgggag cagtgaggag gaggaagacg aagagagtgg catggaagaa
720
ggggatgacg cgggaagact ccaaggcgg agtgaggaaag acagggtctg agatagaaac
780
agtgaggatg atgggtgtggt gatgaccttc tctagtgtca aagtttctga ggaagtggag
840
aaagggaagag ccgtgaagaa ccagatagca ctgtgggacc agctcttgga aggaaggatc
900
aaactacaaa aagctctgtt gaccaccaac cagcttcttc aaccagatgt ttctccattg
960
ttcaaggaca aagtgggccc agaattttcc agtgcctga aaaatagtca caaggcactt
1020
aaagcattgt tgaggtcatt ggtagggtct caggaaagagt tgcttttcca gtaccagac
1080
actagatata tagtagatgg gacaagccc aatgcgggaa gtgaggagat ttctagttaa
1140
gatgatgagc tggtagaaga gaagaagcag caacgaagaa gggctcctgc aaagaggaag
1200
ctggagatgg aggactatcc cagcttcagt gcaaacgctt ttgccgactt tacagctcac
1260
aggaaccgca cacttcagaa atggcacgat aagaccaaac tggcttcttg aaaactgggg
1320
aagggttttg gtgcctttga acgctcaate ttgactcaga tcgaccatat tctgatggac
1380

aaagagagat tacttcgaag gacacagacc aagcgtctgt tctatcgagt tcttgccaaa
 1440
 cctgagccag cagctcagcc tgtcccagag agtttgccag gggaaaccgga gatccttcct
 1500
 caagccctgt ctaatgctca tctgaaggac ttggatgaag aaatctttga tgatgatgac
 1560
 tttaccacc agctccttcg agaactcata gaacggaaga ccagctcctt ggatcccaac
 1620
 gatcaggtgg ccatgggaag gcagtggctt gcaatccaga agttacgaag caaaatccac
 1680
 aaaaaagtag ataggaaagc cagcaaaagg aggaaacttc ggtttcatgt ccttagcaag
 1740
 ctactgagtt toatggcacc tattgacat actacaatga atgatgatgc caggacagaa
 1800
 ctgtaccgct ctcttttttg ccagctccac cctcccgcag aaggccacgg ggattgacat
 1860
 cggccacctc cgacaccag tgggcgcctt ggctggtgag gctgctggtc cagatggagg
 1920
 aaaccagtga ctttatgggg ctgagctagt agggaaagccc ctggaaagat gctgcgttcc
 1980
 gaacctgtgc ctaatacacg caaggcgct gtcccccca accccgcctt taaacgccac
 2040
 aaaaaagag cattgttacc gccaaaaaaa aaaaaaaaaa aaaaaaaaaa aaa
 2093

<210> 6078

<211> 213

<212> PRT

<213> Homo sapiens

<400> 6078

Arg Pro Gly Arg Ser Pro Gly Ser Gly Arg Ser Arg Ala Val Gly Cys
 1 5 10 15
 Leu Arg Ala Val Ser Gly Gly Ser Gly Asn Arg Ile Lys Ala Arg Gly
 20 25 30
 Ser Gly Arg Glu Gly Ala Ser Gly Pro Gly Val Gly Pro His Ile Tyr
 35 40 45
 Val Arg Glu Ala Glu Asp Arg Glu Leu Val Thr Met Ala Gly Pro Gln
 50 55 60
 Pro Leu Ala Leu Gln Leu Glu Gln Leu Leu Asn Pro Arg Pro Ser Glu
 65 70 75 80
 Ala Asp Pro Glu Ala Asp Pro Glu Glu Ala Thr Ala Ala Arg Val Ile
 85 90 95
 Asp Arg Phe Asp Glu Gly Glu Asp Gly Glu Gly Asp Phe Leu Val Val
 100 105 110
 Gly Ser Ile Arg Lys Leu Ala Ser Ala Ser Leu Leu Asp Thr Asp Lys
 115 120 125
 Arg Tyr Cys Gly Lys Thr Thr Ser Arg Lys Ala Trp Asn Glu Asp His
 130 135 140
 Trp Glu Gln Thr Leu Pro Gly Ser Ser Asp Glu Glu Ile Ser Asp Glu
 145 150 155 160
 Glu Gly Ser Gly Asp Glu Asp Ser Glu Gly Leu Gly Leu Glu Glu Tyr
 165 170 175
 Asp Glu Asp Asp Leu Gly Ala Ala Glu Glu Gln Glu Cys Gly Asp Gln


```

                180                185                190
Gly Glu Gln Glu Asp Glu Lys Pro Leu Cys Lys Asn Thr Gly Leu Gln
                195                200                205
Cys Pro Glu Tyr Gln
                210

<210> 6079
<211> 651
<212> DNA
<213> Homo sapiens

<400> 6079
ggccagtcct cgcctcgt cgtcagttt cccctgctg aactactggg tgcggagcgg
60
gtgctgtgcg agcctgcgca tgtgcatagg ggtcgactgc cgtgcgggtg catgaggcgg
120
catgcgcagc ggggcctggt gtgtacgcgg cgcagcgcgg cagtccgat gcccggcat
180
gggttacgcg tgcgtccctt gctgtcgtct ctggtcggcg cgtggctcaa gctagaaat
240
ggacaggcta ctagcatggt ccaactgcag ggtgggagat tcctgatggg aacaaattct
300
ccagacagca gagatggtga agggcctgtg cgggaggcga cagtgaacc ctttgccatc
360
gacatatttc ctgtcaccaa caaagatttc agggattttg tcaggggagaa aaagatcgg
420
acagaagctg agatgttttg atggagcttt gtctttgagg actttgtctc tgatgagctg
480
agaaacaaag ccaccagcc aatgaagtct gtactctggt ggcttcaggt ggaaggcga
540
tttggaggc agcctgcagg tcttggctct ggcacccgag agagactgga gcacccagtg
600
ttacacgtga gctggaatga cgcctgtgcc tactgtgctt ggcggggaaa a
651

<210> 6080
<211> 162
<212> PRT
<213> Homo sapiens

<400> 6080
Leu Met Ala Arg His Gly Leu Pro Leu Leu Pro Leu Leu Ser Leu Leu
1 5 10 15
Val Gly Ala Trp Leu Lys Leu Gly Asn Gly Gln Ala Thr Ser Met Val
20 25 30
Gln Leu Gln Gly Gly Arg Phe Leu Met Gly Thr Asn Ser Pro Asp Ser
35 40 45
Arg Asp Gly Glu Gly Pro Val Arg Glu Ala Thr Val Lys Pro Phe Ala
50 55 60
Ile Asp Ile Phe Pro Val Thr Asn Lys Asp Phe Arg Asp Phe Val Arg
65 70 75 80
Glu Lys Lys Tyr Arg Thr Glu Ala Glu Met Phe Gly Trp Ser Phe Val
85 90 95
Phe Glu Asp Phe Val Ser Asp Glu Leu Arg Asn Lys Ala Thr Gln Pro

```

	100		105		110
Met	Lys Ser Val Leu Trp Trp Leu Pro Val Glu Lys Ala Phe Trp Arg				
	115		120		125
Gln	Pro Ala Gly Pro Gly Ser Gly Ile Arg Glu Arg Leu Glu His Pro				
	130		135		140
Val	Leu His Val Ser Trp Asn Asp Ala Arg Ala Tyr Cys Ala Trp Arg				
145		150		155	160
Gly	Lys				

<210> 6081

<211> 655

<212> DNA

<213> Homo sapiens

<400> 6081

gataatgac aggaacctcc ctattcaatg ataacattac acgaaatggc agaaacagat
 60
 gaaggatggt tggatgttgt ccagtcctta attagagtta ttccactgga agatccactg
 120
 ggaccagctg ttataacatt gttactagat gaatgtccat tgccactaa agatgcactc
 180
 cagaaattga ctgaaattct caatttaaat ggagaagtag ctgcccagga ctcaagccat
 240
 cctgcccaac acaggaacac atctgcagtc ctaggctgct tggccgagaa actagcagg
 300
 cctgcaagta taggtttact tagcccagga atactggaat acttgctaca gtgtctgaag
 360
 ttacagtcct accccacagt catgcttttt gcacttatcg cactggaaaa gtttgccacag
 420
 acaagtga aaatttgac tattctctgaa tccagtatta gtgaccggct gtgcacattg
 480
 gagtcctggg ctaatgatcc tgattatctg aaacgtcaag ttggtttctg tggccagtgg
 540
 agcttagaca atctcttttt aaaagaaggt agacagctga cctatgagaa agtgaacttg
 600
 agtagcatta gggccatgct gaatagcaat gatgtcagcg agtacctgaa gatct
 655

<210> 6082

<211> 218

<212> PRT

<213> Homo sapiens

<400> 6082

Asp	Asn	Asp	Gln	Glu	Pro	Pro	Tyr	Ser	Met	Ile	Thr	Leu	His	Glu	Met
1			5					10					15		
Ala	Glu	Thr	Asp	Glu	Gly	Trp	Leu	Asp	Val	Val	Gln	Ser	Leu	Ile	Arg
			20					25					30		
Val	Ile	Pro	Leu	Glu	Asp	Pro	Leu	Gly	Pro	Ala	Val	Ile	Thr	Leu	Leu
			35					40				45			
Leu	Asp	Glu	Cys	Pro	Leu	Pro	Thr	Lys	Asp	Ala	Leu	Gln	Lys	Leu	Thr
			50					55				60			
Glu	Ile	Leu	Asn	Leu	Asn	Gly	Glu	Val	Ala	Cys	Gln	Asp	Ser	Ser	His

```

65              70              75              80
Pro Ala Lys His Arg Asn Thr Ser Ala Val Leu Gly Cys Leu Ala Glu
      85
Lys Leu Ala Gly Pro Ala Ser Ile Gly Leu Leu Ser Pro Gly Ile Leu
      100
Glu Tyr Leu Leu Gln Cys Leu Lys Leu Gln Ser His Pro Thr Val Met
      115
Leu Phe Ala Leu Ile Ala Leu Glu Lys Phe Ala Gln Thr Ser Glu Asn
      130
Lys Leu Thr Ile Ser Glu Ser Ser Ile Ser Asp Arg Leu Val Thr Leu
      145
Glu Ser Trp Ala Asn Asp Pro Asp Tyr Leu Lys Arg Gln Val Gly Phe
      165
Cys Ala Gln Trp Ser Leu Asp Asn Leu Phe Leu Lys Glu Gly Arg Gln
      180
Leu Thr Tyr Glu Lys Val Asn Leu Ser Ser Ile Arg Ala Met Leu Asn
      195
Ser Asn Asp Val Ser Glu Tyr Leu Lys Ile
      210

```

<210> 6083

<211> 358

<212> DNA

<213> Homo sapiens

<400> 6083

```

nnacgcgtga ggggacaggc tgagaaaaaa gaattacgac ataaaataga tgaatggaa
60
gaaaaagaac aggagctcca ggcaaaaata gaagctttgc aagctgataa tgatttcacc
120
aatgaaaggc taacagctttt acaagagaag ctgatcgtcg aagggcatct aaccaaagcg
180
gtagaagaaa caaagctttc aaaagaaaat cagacaagag caaaagaatc tgatttttca
240
gatactctga gtccaagcaa ggaaaaaagc agtgacgaca ctacagacgc ccaaatggat
300
gagcaagacc taaatgagcc tcttgccaaa gtgtcccttt taaaagatga cttgcagg
358

```

<210> 6084

<211> 101

<212> PRT

<213> Homo sapiens

<400> 6084

```

Met Glu Glu Lys Glu Gln Glu Leu Gln Ala Lys Ile Glu Ala Leu Gln
1      5      10      15
Ala Asp Asn Asp Phe Thr Asn Glu Arg Leu Thr Ala Leu Gln Glu Lys
20      25      30
Leu Ile Val Glu Gly His Leu Thr Lys Ala Val Glu Glu Thr Lys Leu
35      40      45
Ser Lys Glu Asn Gln Thr Arg Ala Lys Glu Ser Asp Phe Ser Asp Thr
50      55      60
Leu Ser Pro Ser Lys Glu Lys Ser Ser Asp Asp Thr Thr Asp Ala Gln

```

65		70		75		80									
Met	Asp	Glu	Gln	Asp	Leu	Asn	Glu	Pro	Leu	Ala	Lys	Val	Ser	Leu	Leu
				85				90						95	
Lys	Asp	Asp	Leu	Gln											
				100											

<210> 6085

<211> 2307

<212> DNA

<213> Homo sapiens

<400> 6085

```

nntccggatc agttcgagtg cctctaccca taccctgttc atcaccatg tgacagacag
60
agccagggtgg actttgacaa tcccgaactac gagagggtcc ctaatttcca aaatgtggtt
120
ggttacgaaa cagtgggttg ccttggtgat gttctttaca tcccaatgta ctggtggcat
180
cacatagagt cattactaaa tggggggatt accatcactg tgaacttctg gtataagggg
240
gctcccaccc ctaagagaat tgaatatcct ctcaaagctc atcagaaagt ggcoataatg
300
agaaacattg agaagatgct tggagaggcc ttggggaacc cacaagaggt gggggcccttg
360
ttgaacacaa tgatcaaggg ccgatacaac tagcctgccca ggggtcaagg cctcctgccca
420
ggtgactgct atcccgtdca caccgcttca ttgatgagga caggagactc caagcgctag
480
tattgcacgc tgcacttaat ggaactggact cttgccatgg ccaggagatc aggtgttttg
540
agcgaggcag ggcagttggc actccactcc tatltggagg gacttcatac ccttgccctc
600
tgtgccccctg caccttctct ctctgcccc ccgctaaagt cctgcattca gtgtgtggag
660
ccccagcttt tgggtgtcat catgtctgtg tgtatgttag tctgtcaact tcggaatgtg
720
tgcgtgtgtg tgcattgcaca cgcattgatg tatctgttcc ctgttctctc tgggtcaggg
780
tgtcacttcc ggctctcagc cctatctctc gcaacctcag tgcctcagcc tgagagagag
840
atgagatgct cttggactcc ccaactgcate tgggctgcag ggccagagct agtctgacca
900
ttaggtcagt ctgcctcctg acagtttttg cgtagtcaag ctctaggcgg tatgggaatg
960
gctaccggga ctctaattgg gtgaaagaga ggggaggcct gcctttgaga gcctatatag
1020
ccttctgtg agagaggatt agatagggtt ccaactgggc ctacaagctc aagccataca
1080
taaaaggacc ttgggacata agaaccaatg attgtgcata agttctaagt tagagacaca
1140
tatagtttct ctctttcagc accagctctt gccctatgce tgggtaccaa gggagtcttc
1200
ctagctgtgg cttctctagg ttctaggggt gcaagcctct gtgtgtttgt ttgtgtgtgt
1260

```

ctgtgtgtgc gtatcacact aggggtgcaa gcctctgggt gtgtgtgtgt gtgtgcgtgc
 1320
 gtgtgtgtgt gtgtgtccgt gtgtgtgtgt gtgtgtgtcc acactggcca gcctccctac
 1380
 ttaccaaggt tctccactgc ttaccttttc cagtgaggaca gtacagtggt agccccggg
 1440
 aagtaactgc tgacctatcc taagctttta cacttggatt ttaccatca tatgtggcc
 1500
 aggtctcact gcagcctgcc cgaggctaac tggctagagc ctccagccct atgatgctcc
 1560
 ctgcccaggc catatccctt atctctgtgt agcttcctgg ctgaatagat gaaatggggt
 1620
 caagcccagg cagctcattc actacctgtg atccacctca gggcacgggc aaacacatag
 1680
 gcttgctgtc taaagccagc tctctgtcca gaccccggtg taatgtgcca caacaccctc
 1740
 aatagtccag gcaactgggt gagcatggaa gtcgaatttc cttttctgtt aggagctact
 1800
 cctgggaacc cctctcaggg ctgcagctta cagggtggga gctgtgatt cacaacttga
 1860
 agggccatca ttcacatcta ttcagtggga gtgggggtccc tgggattggg cagtgtgggt
 1920
 gccctgtgtc tctcacctc tgctcctgtc ttcacacct tctctctgga agggaagagg
 1980
 agttggaagg tctctggttt tcttttcttt tttttttttt ttgccaaagg tttacttcca
 2040
 gcactctgag tctgtgtctc acccctgaag ctacgttata gtgcactgat gaactgagag
 2100
 gatgcgtgtg gatgtgtgtg catgcctgag tgcgtttttt ggggaggggt gtttattttt
 2160
 agtaccatct tctggggttc tctgatgcag tgtggatgtg aagatatggt accttctcaa
 2220
 gtgtagctct ttcaaatata gtcaatgctg ggaaaaaaaaa aaaaaaaaaa aaaaaaaaaa
 2280
 aaaaaaaaaa aaaaaaaaaa aaaaaaa
 2307

<210> 6086

<211> 84

<212> PRT

<213> Homo sapiens

<400> 6086

Met Leu Gly Thr Lys Gly Val Leu Leu Ala Val Ala Ser Leu Gly Ser
 1 5 10 15
 Arg Gly Ala Ser Leu Cys Val Phe Val Cys Val Cys Leu Cys Val Arg
 20 25 30
 Ile Thr Leu Gly Val Gln Ala Ser Gly Cys Val Cys Val Cys Ala Cys
 35 40 45
 Val Cys Val Cys Val Ser Val Cys Val Cys Val Cys Val His Thr Gly
 50 55 60
 Gln Pro Pro Tyr Leu Pro Arg Phe Ser Thr Ala Tyr Leu Phe Gln Trp
 65 70 75 80
 Asp Ser Thr Val

<210> 6087

<211> 1506

<212> DNA

<213> Homo sapiens

<400> 6087

ncggcccccg ggagctgtgc tctatggagc tattgcggcc gtgggtgggc gcggcgatg
 60
 cggggctgcc agctcctcgg gcttcgtagc tcttggcccc gggacctact aagtgtctgg
 120
 ctcttgtccc aagagaagcg ggcagcggaa acgcactttg ggtttgagac tgtgtcggaa
 180
 gaggagaagg ggggcaaagt ctatcaggtg tttgaaagtg tggctaagaa gtatgatgtg
 240
 atgaatgata tgatgagtcct cggcatccat cgtgtttgga aggatttgcct gctctggaag
 300
 atgcacccgc tgccccgggac ccagctgctc gacatggctg gaggcacagg tgacattgag
 360
 ttccgggttcc ttaattatgt tcagtcaccg catcagagaa aacagaagag gcagtttaagg
 420
 gcccaacaaa atttatcctg ggaagaaatt gccaaagagt accagaatga agaagattcc
 480
 ttgggcgggt ctctgtgtcgt ggtgtgtgac atcaacaagg agatgctaaa ggttgaaag
 540
 cagaaagcct ttggtcaagg atacagagct ggacttgcct ggggtattagg agatgtctga
 600
 gaactgccct ttgatgatga caagtttgat atttacacca ttgcctttgg gatccggaat
 660
 gtcacacaca ttgatcaggc actccaggaa gctcatcggg tgcctgaaacc agggagacgg
 720
 ttctctctgtc tgggaatttag ccaagtgaac aatccctca tatccaggct ttatgatcta
 780
 tatagcttcc aggtcatccc tgtcctggga gaggtcatcg ctggagactg gaagtcctat
 840
 cagtaccttg tagagagtat ccgaagggtt cgtctcagg aagagttaa ggacatgata
 900
 gaagatgcag gctttcacaa ggtgacttac gaaagttaa catcaggcat tgtggccatt
 960
 cattctggct tcaaaacttta attcctttcc tatcatggag catgaaccag tcatatcctg
 1020
 ttgaaagcct ggaactgaag gataatctgg caaatgagac agcagcagag catctcctct
 1080
 taaggatacg tgccttggac tcatgtttga atcgaaacagt ctcaaagtgg aagaacaatt
 1140
 tcttgtcact tttttacagc ttcttttga gctgcttcag tccatctccc agaggcattt
 1200
 ggtctgtatc tttgtcaac tgctaatttc tcttggctgt aggggtgtgtg gtttaaggta
 1260
 aaccacccct aaagctcagt tttgaagtga gtgtatttat agcttctctg ctggtgctgc
 1320
 ctcttagagg gatgatagat catttgaacc caatgacaat ttttaaccag aaaatttaatt
 1380

tgtacctgaa tcaacctttc agcctaggac gaagtctagg cccaagtcag agtattaatg
 1440
 atcatgagaa ttgtgtgctg aaccagtaaa cgagtttacc tttaaaaaaa aaaaaaaaaa
 1500
 aaaaaa
 1506

<210> 6088

<211> 326

<212> PRT

<213> Homo sapiens

<400> 6088

Xaa	Ala	Pro	Gly	Ser	Cys	Ala	Leu	Trp	Ser	Tyr	Cys	Gly	Arg	Gly	Trp
1				5					10				15		
Ser	Arg	Ala	Met	Arg	Gly	Cys	Gln	Leu	Gly	Leu	Arg	Ser	Ser	Trp	
		20					25					30			
Pro	Gly	Asp	Leu	Leu	Ser	Ala	Arg	Leu	Leu	Ser	Gln	Glu	Lys	Arg	Ala
		35				40					45				
Ala	Glu	Thr	His	Phe	Gly	Phe	Glu	Thr	Val	Ser	Glu	Glu	Glu	Lys	Gly
	50				55					60					
Gly	Lys	Val	Tyr	Gln	Val	Phe	Glu	Ser	Val	Ala	Lys	Lys	Tyr	Asp	Val
65				70					75					80	
Met	Asn	Asp	Met	Met	Ser	Leu	Gly	Ile	His	Arg	Val	Trp	Lys	Asp	Leu
			85					90					95		
Leu	Leu	Trp	Lys	Met	His	Pro	Leu	Pro	Gly	Thr	Gln	Leu	Leu	Asp	Met
			100				105					110			
Ala	Gly	Gly	Thr	Gly	Asp	Ile	Ala	Phe	Arg	Phe	Leu	Asn	Tyr	Val	Gln
	115					120					125				
Ser	Gln	His	Gln	Arg	Lys	Gln	Lys	Arg	Gln	Leu	Arg	Ala	Gln	Gln	Asn
	130				135					140					
Leu	Ser	Trp	Glu	Glu	Ile	Ala	Lys	Glu	Tyr	Gln	Asn	Glu	Glu	Asp	Ser
145			150						155					160	
Leu	Gly	Gly	Ser	Arg	Val	Val	Val	Cys	Asp	Ile	Asn	Lys	Glu	Met	Leu
			165					170					175		
Lys	Val	Gly	Lys	Gln	Lys	Ala	Leu	Ala	Gln	Gly	Tyr	Arg	Ala	Gly	Leu
	180					185							190		
Ala	Trp	Val	Leu	Gly	Asp	Ala	Glu	Glu	Leu	Pro	Phe	Asp	Asp	Asp	Lys
	195					200					205				
Phe	Asp	Ile	Tyr	Thr	Ile	Ala	Phe	Gly	Ile	Arg	Asn	Val	Thr	His	Ile
	210				215					220					
Asp	Gln	Ala	Leu	Gln	Glu	Ala	His	Arg	Val	Leu	Lys	Pro	Gly	Gly	Arg
225				230						235				240	
Phe	Leu	Cys	Leu	Glu	Phe	Ser	Gln	Val	Asn	Asn	Pro	Leu	Ile	Ser	Arg
			245					250						255	
Leu	Tyr	Asp	Leu	Tyr	Ser	Phe	Gln	Val	Ile	Pro	Val	Leu	Gly	Glu	Val
		260				265						270			
Ile	Ala	Gly	Asp	Trp	Lys	Ser	Tyr	Gln	Tyr	Leu	Val	Glu	Ser	Ile	Arg
	275					280					285				
Arg	Phe	Pro	Ser	Gln	Glu	Glu	Phe	Lys	Asp	Met	Ile	Glu	Asp	Ala	Gly
	290					295				300					
Phe	His	Lys	Val	Thr	Tyr	Glu	Ser	Leu	Thr	Ser	Gly	Ile	Val	Ala	Ile
305				310					315					320	
His	Ser	Gly	Phe	Lys	Leu										

325

<210> 6089

<211> 4211

<212> DNA

<213> Homo sapiens

<400> 6089

ncgggcgact cgcgggtgtg acgttgaaga tgcggcctt ctgagccgac tgcgggtgtc
60
aagagtgtaa cacagccagc ctogaagact tccctctgag ttggaatgat aatgaccgaa
120
tcccagagaag ttatagactt agacccccca gctgagactt cccaggagca ggaagacctt
180
ttcatagtga aggtggaaga agaagactgc acctggatgc aggagtacaa cccgccaacg
240
tttgagactt ttaccagcg cttcaggcac ttccagtacc atgaggcttc aggaccccg
300
gaggctctca gccaaactccg ggtgctctgc tgtgagtggc tgaggcccca gctgcacacg
360
aaggagcaga tcttggagct gctggtgctg gagcagttcc tgaccatcct gcctgaagag
420
ttccagccct ggggtgagga acatcaccct gaaagtggag aagaggcggt ggccgtgata
480
gaaaatatac agcgagaact tgaggaacgc agacagcaga ttgttgctcg cctgatgtg
540
cttctctgga agatggcaac acctggagca gtgcaggagt cctgcagccc ccattccctg
600
accgtggaca cccagcctga gcaagcgcca cagaagcctc gtctctgga ggaatatgcc
660
cttctgttc tccaagttcc ttcccttccc ctgaaggaca gccaggagct gacagcttca
720
cttctctcaa ctgggtccca gaagtgggtg aaaattgaag aggtggctga tgtggctgta
780
tcttctatcc tggaggaaatg ggggcatctg gaccagtccc agaagctcct ttatagggat
840
gacaggaagg agaactatgg gagtattact tccatgggtt atgagtccag ggacaatatg
900
gagctcatag tgaagcagat ttctgatgac tctgaatcac actgggtggc gccagaacac
960
accgaaagga cgttcttcca ggatccagac ttgacagaag tcagtgcac taaaggcatg
1020
gtacaaaggt ggcaggtcaa cccactgtg gggaaatcaa ggcagaatcc ttccagaaaa
1080
agggatctgg atgcaatcac agacatcagc cctaagcaaa gcacacatgg cgagagaggg
1140
cacagatgca cgtattgtgg caaatcttct ctccaagcct caaactttat tcagatcgg
1200
cgatccaca ctggagaaaa accgtttaag tgcggagaat gtgggaagag ctacaatcag
1260
cgggtgcacc tcacccagca ccagcgcgtc cacacagggg agaaacccta caaatgtcag
1320
gtgtcggaa aggtcttccg ggtgagtcc cactgtgttc agcaccacag tgtccacagc
1380

ggagagaggc cctatggctg caatgagtggt gggaagaact tcggtcgcca ttccatctgt
1440
atcgaaacacc taaaacgcca cttcagggag aaatcccaga gatgcagtga caaaagaagt
1500
aagaacacaa aattaagtgt taagaagaaa atttcagaat attcagaagc agacatggaa
1560
ctatctggaa aaacccaaag aaatgtttct caagttcaag attttggaga aggctgtggg
1620
tttcaaagca agctggatag aaagcaggga attcccatga aagagatact aggacaacca
1680
ctttcaaaga ggatgaacta cagtgaagtc ccatatgtcc aaaaaaatc ctccactgga
1740
gagagaccac ataaatgtaa cgagtgtggg aaaagcttca ttcagagtgc acatcttatt
1800
caacatcaaa gaatacacac tggggagaaa ccattcaggt gtgaggaatg tgggaaaagc
1860
tacaaccaac gcgtgcacct aactcagcat cagcgcgtcc acacaggtga gaagccctac
1920
acctgtccct tatgtgggaa agccttcaga gtgaggtccc acctgtgtca gcatcagagc
1980
gtgcacagtg gggagagacc cttcaagtgt aacgaatgtg ggaagggtct tggggaggct
2040
tcccacctgg ctggacatct tcgaactcac tcccagaga aatcccatca gtgtcgtgaa
2100
tgtggggaaa tcttttttca gtacgttagc ctaattgaac atcaggtgct ccacatgggt
2160
cagaaaaaatg aaaaaaatgg catctgtgag gaagcatata gttggaactt gacagtgatt
2220
gaagacaaga agattgagtt acaagagcag cttatcagt gtgatatctg tggaaaagcc
2280
tttggttata gtcacacct cattcagcat tacagaactc atacagcaga gaagccctat
2340
caatgtgata tatgtagaga aaatgttggc cagtgttccc acaccaaaca acatcaaaaa
2400
atctactcca gcacaaaatc ccatcaatgt catgaatgtg gcagagggtt cactctgaag
2460
tcacatttta atcaacatca gagaatccat actggtgaga aaccttttca atgtaaagaa
2520
tgtggaatga atttcagctg gagttgtagc ctctttaaac acctgagaag ccatgagagg
2580
acagatccca taaatacctt aagtgtagag gggctctctg tgtagaatag ctcttaattt
2640
tagagaaaac ttccctggagg gaaaccatac tctataatg agcaaagtaa caacttcaag
2700
cattttttcca gcgttaccat caaactcaca aataggttga aatcctttag ttataactca
2760
gccttttaga acaccggaga acccaata atagaaatct ttctgtgttc ccattgaga
2820
aatgcttttag ttagcatctt catgcttgga aatctagaca agaagagaat ccatggatgg
2880
acatggctga ggaattcgga aagcctgcag ttgacattca gtcttcaactt gaaactcaaa
2940
actgacacta ggaacagctt catgagttca gtagaagtaa gctttatttg tagcttctgc
3000

cttgtttgac ggcgatatcta ttcaggggaag cgcacagtaa aagaattcct tagcatgatg
 3060
 tctgttttgg tacetacagca atgaaccttt tctagaattt attattccaa cactatagaat
 3120
 accctagtcata ctattccac tttgagcatt aacctcttg aaaagaaatg gacttaaagt
 3180
 atctctgttt tggcaaaatt caggttcagg ggctggatgg tatgtgttgc tgctgcttta
 3240
 ttcaatccac cacttctctg tgaaacactc tacctgtgtt ttggtttgat tctactgatg
 3300
 tcagggttta gccggtagaa ggagtagttc agtttgtcaa ttcaggagaa actgtactgg
 3360
 tcagtcacat cttacggcga agggagaggg accttagggg agcagagaag acaggcaaa
 3420
 ttgtggactg tttgatcttg tattaccac aggaatgagg gcagctaaac ccataagaag
 3480
 agttggacca aggcgaatta cagctctgg tcccagcagt atgtgtgctg acttctgggt
 3540
 gccccagaaa tagacctctc ctgtagagtg gtgatataca gaatgagttt cagtttgcat
 3600
 tgcagctggg attgaaagta atcagtcagt agcaggcagg caggaggtcc tgttagccct
 3660
 gccttccagg aagggtgggg tgggagtttt gagggtggaaa gaggatgaca tgtgtgagag
 3720
 agttctgagc ctgtttgcta gggagagtg gtgagtgctc ttgggactg ctccagccgt
 3780
 ttctgctgac ttgcctggct tacaataaat gcccaataaa tatttgttta ccatagtgt
 3840
 tgtacactgt ggtgccctgt ccagtcacct ctaccaagct gagacccca tccccagctg
 3900
 ctctgagttt gggctgcaag tgctcacagc tcttgttctc cagaaactgg agaattggcc
 3960
 tcaggagatg agagccatct caccctaccc aggagtcact tctctctac accccaacac
 4020
 ctgggttcatt tgattaaagc ggagaaaact ccagggtgct atgactgctc tggcaccctt
 4080
 ggatcaggcc aagctagact ttttctgagc cttcatccgt gctaagctct ctccctctc
 4140
 tatectgttt cattccctcc ctcaaaggcg tttcccaaat aaatcacact gtcatacaca
 4200
 tggttctgaa a
 4211

<210> 6090

<211> 839

<212> PRT

<213> Homo sapiens

<400> 6090

Met Ile Met Thr Glu Ser Arg Glu Val Ile Asp Leu Asp Pro Pro Ala
 1 5 10 15
 Glu Thr Ser Gln Glu Gln Glu Asp Leu Phe Ile Val Lys Val Glu Glu
 20 25 30
 Glu Asp Cys Thr Trp Met Gln Glu Tyr Asn Pro Pro Thr Phe Glu Thr

35					40					45					
Phe	Tyr	Gln	Arg	Phe	Arg	His	Phe	Gln	Tyr	His	Glu	Ala	Ser	Gly	Pro
50						55				60					
Arg	Glu	Ala	Leu	Ser	Gln	Leu	Arg	Val	Leu	Cys	Cys	Glu	Trp	Leu	Arg
65					70				75						80
Pro	Glu	Leu	His	Thr	Lys	Glu	Gln	Ile	Leu	Glu	Leu	Leu	Val	Leu	Glu
			85					90						95	
Gln	Phe	Leu	Thr	Ile	Leu	Pro	Glu	Glu	Phe	Gln	Pro	Trp	Val	Arg	Glu
			100					105					110		
His	His	Pro	Glu	Ser	Gly	Glu	Glu	Ala	Val	Ala	Val	Ile	Glu	Asn	Ile
			115					120				125			
Gln	Arg	Glu	Leu	Glu	Glu	Arg	Arg	Gln	Gln	Ile	Val	Ala	Cys	Pro	Asp
			130				135				140				
Val	Leu	Pro	Arg	Lys	Met	Ala	Thr	Pro	Gly	Ala	Val	Gln	Glu	Ser	Cys
				150					155					160	
Ser	Pro	His	Pro	Leu	Thr	Val	Asp	Thr	Gln	Pro	Glu	Gln	Ala	Pro	Gln
			165					170						175	
Lys	Pro	Arg	Leu	Leu	Glu	Glu	Asn	Ala	Leu	Pro	Val	Leu	Gln	Val	Pro
			180					185					190		
Ser	Leu	Pro	Leu	Lys	Asp	Ser	Gln	Glu	Leu	Thr	Ala	Ser	Leu	Leu	Ser
			195				200					205			
Thr	Gly	Ser	Gln	Lys	Leu	Val	Lys	Ile	Glu	Glu	Val	Ala	Asp	Val	Ala
			210				215				220				
Val	Ser	Phe	Ile	Leu	Glu	Glu	Trp	Gly	His	Leu	Asp	Gln	Ser	Gln	Lys
			225			230			235					240	
Ser	Leu	Tyr	Arg	Asp	Asp	Arg	Lys	Glu	Asn	Tyr	Gly	Ser	Ile	Thr	Ser
			245					250						255	
Met	Gly	Tyr	Glu	Ser	Arg	Asp	Asn	Met	Glu	Leu	Ile	Val	Lys	Gln	Ile
			260					265					270		
Ser	Asp	Asp	Ser	Glu	Ser	His	Trp	Val	Ala	Cys	Glu	His	Thr	Glu	Arg
			275				280					285			
Ser	Val	Pro	Gln	Asp	Pro	Asp	Phe	Ala	Glu	Val	Ser	Asp	Leu	Lys	Gly
			290			295					300				
Met	Val	Gln	Arg	Trp	Gln	Val	Asn	Pro	Thr	Val	Gly	Lys	Ser	Arg	Gln
			305			310				315				320	
Asn	Pro	Ser	Gln	Lys	Arg	Asp	Leu	Asp	Ala	Ile	Thr	Asp	Ile	Ser	Pro
			325					330						335	
Lys	Gln	Ser	Thr	His	Gly	Glu	Arg	Gly	His	Arg	Cys	Ser	Asp	Cys	Gly
			340					345					350		
Lys	Phe	Phe	Leu	Gln	Ala	Ser	Asn	Phe	Ile	Gln	His	Arg	Arg	Ile	His
			355				360					365			
Thr	Gly	Glu	Lys	Pro	Phe	Lys	Cys	Gly	Glu	Cys	Gly	Lys	Ser	Tyr	Asn
			370			375					380				
Gln	Arg	Val	His	Leu	Thr	Gln	His	Gln	Arg	Val	His	Thr	Gly		

665					470				475					480	
Glu	Ala	Asp	Met	Glu	Leu	Ser	Gly	Lys	Thr	Gln	Arg	Asn	Val	Ser	Gln
				485					490					495	
Val	Gln	Asp	Phe	Gly	Glu	Gly	Cys	Glu	Phe	Gln	Gly	Lys	Leu	Asp	Arg
			500					505					510		
Lys	Gln	Gly	Ile	Pro	Met	Lys	Glu	Ile	Leu	Gly	Gln	Pro	Ser	Ser	Lys
			515				520					525			
Arg	Met	Asn	Tyr	Ser	Glu	Val	Pro	Tyr	Val	His	Lys	Lys	Ser	Ser	Thr
			530			535					540				
Gly	Glu	Arg	Pro	His	Lys	Cys	Asn	Glu	Cys	Gly	Lys	Ser	Phe	Ile	Gln
545					550					555					560
Ser	Ala	His	Leu	Ile	Gln	His	Gln	Arg	Ile	His	Thr	Gly	Glu	Lys	Pro
			565						570					575	
Phe	Arg	Cys	Glu	Glu	Cys	Gly	Lys	Ser	Tyr	Asn	Gln	Arg	Val	His	Leu
			580				585						590		
Thr	Gln	His	Gln	Arg	Val	His	Thr	Gly	Glu	Lys	Pro	Tyr	Thr	Cys	Pro
			595				600					605			
Leu	Cys	Gly	Lys	Ala	Phe	Arg	Val	Arg	Ser	His	Leu	Val	Gln	His	Gln
			610			615					620				
Ser	Val	His	Ser	Gly	Glu	Arg	Pro	Phe	Lys	Cys	Asn	Glu	Cys	Gly	Lys
625					630				635						640
Gly	Phe	Gly	Arg	Arg	Ser	His	Leu	Ala	Gly	His	Leu	Arg	Leu	His	Ser
			645						650					655	
Arg	Glu	Lys	Ser	His	Gln	Cys	Arg	Glu	Cys	Gly	Glu	Ile	Phe	Phe	Gln
			660					665				670			
Tyr	Val	Ser	Leu	Ile	Glu	His	Gln	Val	Leu	His	Met	Gly	Gln	Lys	Asn
			675				680					685			
Glu	Lys	Asn	Gly	Ile	Cys	Glu	Glu	Ala	Tyr	Ser	Trp	Asn	Leu	Thr	Val
			690			695					700				
Ile	Glu	Asp	Lys	Lys	Ile	Glu	Leu	Gln	Glu	Gln	Pro	Tyr	Gln	Cys	Asp
705					710					715					720
Ile	Cys	Gly	Lys	Ala	Phe	Gly	Tyr	Ser	Ser	Asp	Leu	Ile	Gln	His	Tyr
			725						730					735	
Arg	Thr	His	Thr	Ala	Glu	Lys	Pro	Tyr	Gln	Cys	Asp	Ile	Cys	Arg	Glu
			740					745				750			
Asn	Val	Gly	Gln	Cys	Ser	His	Thr	Lys	Gln	His	Gln	Lys	Ile	Tyr	Ser
			755				760					765			
Ser	Thr	Lys	Ser	His	Gln	Cys	His	Glu	Cys	Gly	Arg	Gly	Phe	Thr	Leu
			770			775					780				
Lys	Ser	His	Leu	Asn	Gln	His	Gln	Arg	Ile	His	Thr	Gly	Glu	Lys	Pro
785					790					795					800
Phe	Gln	Cys	Lys	Glu	Cys	Gly	Met	Asn	Phe	Ser	Trp	Ser	Cys	Ser	Leu
			805					810						815	
Phe	Lys	His	Leu	Arg	Ser	His	Glu	Arg	Thr	Asp	Pro	Ile	Asn	Thr	Leu
			820					825					830		

<210> 6091

<211> 1336

«212» DNA

<213> Homo sapiens

<400> 6091

ttttttcttt tttttttttt tccataaaaa gcactttgtt taattttatc aaatcgatct
60
gtacaaaagt tagcgttgct tggtcagaaa ggagtgaagg cagcagggga gtgagggtgc
120
gtcctccgaa cgcggtgcc aaggagacgc tgcataaac gggctctcga cggctcccg
180
ccccacccc cccccaga gaaatagaag cagaggcatt atcttttttt tctacaaaa
240
agttagaaaa gtagaaaaag tacaagaag caacttctcg gctgtgttta agtttaca
300
gtttaaaggc acaagtttcc gtgaagtagg cgctattgta tgcctatgc tcagcacaca
360
ggggaagcag tgcaggtgaa tcaggtatga ctgctataga actgaggccc taacgacgtt
420
tagtggagaa ggttttagttt cacagcttg taggtggcac tgggtcctgc gagccaagat
480
cacttctgaa gccaccactt tccaggaatt cctgtgtcct gtgtcctacc acatggcaca
540
gtcatgggca aggaccagg aattcctgtg tcctatgtgt cctaccacgt ggcacagtgc
600
gggacaggga cggagtcctg ctctccaaac cccaaactgg tactgggtgc tggggcaccc
660
caacctgac agagatgtca caaggcaggt ccttctcct cctcggggtt ttcggttgcc
720
aagctcgagg catgaggggc ccagctctcc cagggaacct gggacctccg ggccctccag
780
ggcggcctcc cataagccga gcaacgagca acgtgatgcc ggccaacagc tgcaactcca
840
cctcctgctt gccctcaagg gaagcttccc agcttccgtt ttgtctttaa ttctactctt
900
tgcccggaatt acctcattaa ttaaagataa aataacacag aacataaata catctttaac
960
agctttcaga agaaacacat ttaagcttca aaaataaaaa ttatcaaaaa cataaaaaa
1020
aaagagagat gtgttcatca cagccagccc tcgogtgagc gactctgccc agcaaggaga
1080
cacctcagat ctgacaggca ggtcccgagg atgctcgagt agactcatcc cagtctcggg
1140
acagacaccc cggatcccg acagcccggt cagccgttgt cgagggaatg tggccttgag
1200
tgacggggct ctcggcgcca agaccggcct ggacctcaca gcgcctgca aggccctgc
1260
caccctctcc ttgggtcctt gggtgtgtgt gcggtttctc ctctaccgag atgcaaagcg
1320
aagggtgctg tgccgc
1336

<210> 6092

<211> 118

<212> PRT

<213> Homo sapiens

<400> 6092

Met Ala Gln Ser Trp Ala Arg Thr Gln Glu Phe Leu Cys Pro Met Cys

```

1           5           10           15
Pro Thr Thr Trp His Ser Arg Gly Gln Gly Arg Ser Pro Ala Ser Gln
20
Thr Pro Asn Trp Tyr Trp Val Leu Gly His Pro Asn Leu Ile Arg Asp
35
Val Thr Arg Gln Val Pro Ser Pro Pro Ser Gly Phe Arg Leu Pro Ser
50
Ser Arg His Glu Gly Pro Ser Pro Pro Arg Asp Leu Gly Thr Ser Gly
65
Pro Ser Arg Ala Ala Ser His Lys Pro Ser Asn Glu Gln Arg Asp Ala
85
Gly Gln Gln Leu Gln Leu His Leu Leu Pro Ala Leu Lys Gly Ser Phe
100
Pro Ala Ser Val Leu Ser
115

```

<210> 6093

<211> 1998

<212> DNA

<213> Homo sapiens

<400> 6093

```

tttttttttt tttttttttt ttttttttcc ataaaaatgg atttattggc
60
aaactttaag aaaggcgctt cataagcaga agacacagaa tgccaccctc ctcaaggagg
120
caagcacgga atgccacctt cctcaagcac gcaagctagg caggccctgc acgttctcac
180
tcctctccca gaagccagct tectgcctag ggcccagcct gctaaaggat ggaaattaat
240
agcatttggt cacttgaggt ggcccagag ctacttgctt acccaccagg ccccgaggag
300
agtggctggg cctcaacctg tgacctacat gcagggtctc tgcaccacaa gactctgccc
360
tcagtcagc tgctgcagtt agctacttga cacaggaggg aactgaggct ccaattctctg
420
gcagtaggtg gcttggttaa agcccagacc agccatggct gctgggtggg gaaggctgtt
480
cctaaggcaa gatggcaggg gatcacatga ctgggcaact gatgtccttc ttgctcttgt
540
cctggggcag atggagggaa agccagactg tggcatgggg gccagatttg cacaaggagg
600
ctgatggggg ctcccgaacc agtgcatctg tgctcacctc tgctccggcc ccacgcagcc
660
cagagaagac atctgcccct cctgacctt gactactacc tcaagaacaa agtgacagta
720
caataacgat aacgaaggca ttgacctgtg cagcaggcct cagtgggggt ggggaacaga
780
gcagaaaagg cagggcattg tgctgtgacc ccccccttc tctctttcag taacacaaaag
840
tgcacatgca gaaatctggg caggtcctat cggaagctgc tctcacccca gaggcccccag
900
ggagagtggc tggacctcgg gagccagggc ctctgcacct acaggctctg ccctcagttc
960

```

agctgctgca gcacgatgga gactggatgt gccctagag tcagggacaa tgtgggggag
 1020
 aggctgggag aggaccaggg tgcagggatg gaccaggaaa gggaaagaag aaatgtctc
 1080
 ttctcctaga aagttacagg agagcagccc atctggggct tgaaggcggg gaagtggctt
 1140
 cggaattccaa catacccta tcagcatttg aagaaatgac tgggatactg gacctgttcc
 1200
 ggctgagaag gaaccacaga gatccagata aatccccatc tgaggaggca cagaagtgg
 1260
 tggggattct ctctgaagg ctgacatgat cattacaagt aagtttttct aatgtggaca
 1320
 tcagagccac tctgggatcc acctcttcag aaatatacaa ggctggacac tatccagggg
 1380
 cagagactag actaggggac cccttaaatt cctcttcac tcttgaatcc tccagacct
 1440
 agccctccaa tcatagctca ctgagaggaa ggggctgcag aaaatgtcct tgttttgcaa
 1500
 aaaaaggaaa caggggccaa gagagagagg ccacacagct aatgtcctcc tcacaaagag
 1560
 gcctctcacc tccctcaaga ggctccagct gggctctacg ttcccccaa ctgaggggatg
 1620
 aacctagagc ctggacccaa ggctcttgca gctactcaga atagtgggga gggaggggctg
 1680
 gctttgaggg tgccttagcc atgaggctct ttgcttagga atagctggag atgggagctg
 1740
 caggggggctc agctgtgctg tattcagaag tcaggaatgt aaactactgg ggaatgggaa
 1800
 cagagatgat gtcattccca gatacccaa ctgcccccc caaagccctg gggcagtttg
 1860
 gaacgaccac acaaacacat aggtccaccg gtgtgtgctc ccagccccag cccagccca
 1920
 gagccccagg cagatagcca gcagtagccc tgggtggcac ctggcaccac tggccagagc
 1980
 agagtaggaa ggacgccc
 1998

<210> 6094

<211> 136

<212> PRT

<213> Homo sapiens

<400> 6094

Met Ile Met Ser Ala Phe Arg Arg Glu Ser Pro Pro Thr Ser Val Pro
 1 5 10 15
 Pro Gln Met Gly Ile Tyr Leu Asp Leu Cys Gly Ser Phe Ser Ala Glu
 20 25 30
 Thr Gly Pro Val Ser Gln Ser Phe Leu Gln Met Leu Ile Gly Val Cys
 35 40 45
 Trp Asn Pro Lys Pro Leu Pro Arg Leu Gln Ala Pro Asp Gly Leu Leu
 50 55 60
 Ser Cys Asn Phe Leu Gly Glu Glu Thr Phe Ser Ser Phe Pro Phe Leu
 65 70 75 80
 Val His Pro Cys Thr Leu Val Leu Ser Gln Pro Leu Pro His Ile Val

```

      85              90              95
Pro Asp Ser Arg Gly Thr Ser Ser Leu His Arg Ala Ala Ala Gly
      100          105          110
Leu Arg Ala Glu Pro Val Gly Ala Glu Ala Leu Ala Pro Glu Val Gln
      115          120          125
Pro Leu Ser Leu Gly Pro Leu Gly
      130          135

```

<210> 6095

<211> 441

<212> DNA

<213> Homo sapiens

<400> 6095

```

naacgtctcc gccgtcggct ccgcggcgcc gccatggccg acgtggaaga cggagaggaa
60
acctgcgccc tggcctctca ctccgggagc tcaggctcca agtcggggag cgacaagatg
120
ttctccctca agaagtggaa cgcggtggcc atgtggagct gggacgtgga gtgcgatacg
180
tgcccatct gcagggtcca ggtgatggcg gtctggggag aatgtaatca ttcttccac
240
aactgtctga tgtccctgtg ggtgaaacag aacaatcgct gccctctctg ccagcaggac
300
tgggtgtgcc aaagaatcgg caaatgagag tggttagaag gcttcttagc gcagttgttc
360
agagccctgg tggatcttgt aatccagtcg cctacaaagg ctagaacact acaggggatg
420
aattcttcaa atagggaccg t
441

```

<210> 6096

<211> 97

<212> PRT

<213> Homo sapiens

<400> 6096

```

Met Ala Asp Val Glu Asp Gly Glu Glu Thr Cys Ala Leu Ala Ser His
1      5      10      15
Ser Gly Ser Ser Gly Ser Lys Ser Gly Gly Asp Lys Met Phe Ser Leu
20      25      30
Lys Lys Trp Asn Ala Val Ala Met Trp Ser Trp Asp Val Glu Cys Asp
35      40      45
Thr Cys Ala Ile Cys Arg Val Gln Val Met Val Val Trp Gly Glu Cys
50      55      60
Asn His Ser Phe His Asn Cys Cys Met Ser Leu Trp Val Lys Gln Asn
65      70      75      80
Asn Arg Cys Pro Leu Cys Gln Gln Asp Trp Val Val Gln Arg Ile Gly
85      90      95
Lys

```

<210> 6097

<211> 2404

<212> DNA

<213> Homo sapiens

<400> 6097

cggttttgtgg cccgggaaaa gataatgtct gtgctgagtg aatggggcct gttccggggc
 60
 ctccagaacc accccatggt actgcccatc tgcagccgtt ttggggatgt gatagaatac
 120
 ctgctgaaga accagtgggtt tgtccgctgc caggaaatgg gggcccgagc tgccaaggct
 180
 gtggagtcgg gggccctgga gctcagtcct tccttcacc agaagaactg gcaaacactgg
 240
 ttttcccata ttggggactg gtgtgtctcc cggcagctgt ggtggggcca tcagattcca
 300
 gectacctgg ttntantagg accatgcgca nngggagaag agnngacctg ttgggtgggc
 360
 ggccgggtcag gggctgaggc cagagagtta gcagcgggac tgacaggagg gcaaggggca
 420
 gagccgaccc tggagaggga tctgatgtc ctacacacat ggtttttctc tgccctgttc
 480
 ccctttttct ccttgggctg gcccgaagag accccagacc ttgctcgttt ctacccctg
 540
 tcacttttgg aaacgggcag cgacctttct ctgtttctgg tgggccgcat ggtcatgttg
 600
 gggaccaccag tcacagggca gctgcccttc agcaaggctc ttcttcaccc catggttcgg
 660
 gacaggcagg gccggaagat gagcaagtcc ctgggggaat tgctggagcc aagagacatc
 720
 atcagtgggg tggagatgca gttgctgcag gaaaagctga gaagcggaaa ttggaccct
 780
 gcagagctgg ccattgtggc tgcagcacag aaaaaggact ttctcaccg gatccctgag
 840
 tgtgggacag atgccctgag attcacctc tgctcccatg gagttcaggc gggcgacttg
 900
 cactgttcag tctctgaggt ccagagctgc cgacatttct gcaacaagat ctggaatgct
 960
 cttcgcttta tctcfaatgc tttaggggag aaattttgtg cacagcctgc tggaggagctg
 1020
 tctccctctc ccccgatgga tgcctggatc ctgagccgac ttgccctggc tgcccaggag
 1080
 tgtgagcggg gcttctctac ccgagagctc tegtctgcta ctcatgccct gcaccacttc
 1140
 tggcttcaca acctctgtga cgtctacctg gaggctgtga agcccggtgt gtggcactcg
 1200
 ccccgccccc tggggccccc tcaggctcctg ttctctctgag ctgacctcgg cctccgcttc
 1260
 ctggcccccac tgatgccctt cctggctgaa gagctctggc agaggctgac cccagggcct
 1320
 ggttgccccc ctgccccag catctcggtt gccccctacc ccagcgcttg cagcttggag
 1380
 cactggcgcc agccagagct ggagcggcgc ttctcccggg tccaagaggt cgtgcaggtg
 1440
 ctaagggtctc tccgagccac gtaccagctc accaaagccc ggcccgaggt gctgctgcag
 1500

agctcagagc ctgggggacca gggcctcttc gaggccttct tgagagccct gggcacccctg
 1560
 ggctactgtg gggctgtggg cctgttaccc ccaggcacag cagctccctc cggtggggcc
 1620
 caggctccac tcagtgcacac ggctcaagtc tacatggagc tgcagggcct ggtggaccgc
 1680
 cagatccagc tacctctgtt agccgcccga aggtacaagt tgcagaagca gcttgacagc
 1740
 ctcacagcca ggaccccatc agaaggggag gcagggaactc agaggcaaca aaagctttct
 1800
 tcctccagc tgggaattgtc aaaactggac aaggcagcct ctcacctccg gcagctgatg
 1860
 gatgagcctc cagccccagg gagccccagg ctctaactca tcatcccatc cagttttctc
 1920
 ccctctcaga cctgtctttg aggacaaaca gatttgtcag ctgtcagggt gcagtgaggc
 1980
 gtcagagact atgtggtcca tcgccttcac tgtgtaaatg aggacacaga ctggcttggt
 2040
 cgcatlgact gtggtgtcct tgagatgtct acattactgc ccggcctgcc tcccacctgg
 2100
 aagtcctggga atgaggagat tgagataaac ttttgaaatc ccaaactatgt ctgtttatgg
 2160
 ctctttgtgc cctttgtctc ccagtgggtga cttttgtgct tctgagttgt cccctgagag
 2220
 cttggtctgg gaaaagagga ggaggggtcc tcaactggag aagaggaacc ttctagtcac
 2280
 ggggttaggta atgggacagt ggttcgggt ctactcctct tcttggaactg acaggtgcct
 2340
 ggctttttgc agggctcctc tctccaatt ctactaaat ggaaggttcc ccgtccttg
 2400
 gctt
 2404

<210> 6098

<211> 631

<212> PRT

<213> Homo sapiens

<400> 5098

Arg	Phe	Val	Ala	Arg	Glu	Lys	Ile	Met	Ser	Val	Leu	Ser	Glu	Trp	Gly
1					5					10				15	
Leu	Phe	Arg	Gly	Leu	Gln	Asn	His	Pro	Met	Val	Leu	Pro	Ile	Cys	Ser
			20						25					30	
Arg	Ser	Gly	Asp	Val	Ile	Glu	Tyr	Leu	Leu	Lys	Asn	Gln	Trp	Phe	Val
			35				40						45		
Arg	Cys	Gln	Glu	Met	Gly	Ala	Arg	Ala	Ala	Lys	Ala	Val	Glu	Ser	Gly
			50				55					60			
Ala	Leu	Glu	Leu	Ser	Pro	Ser	Phe	His	Gln	Lys	Asn	Trp	Gln	His	Trp
					70					75				80	
Phe	Ser	His	Ile	Gly	Asp	Trp	Cys	Val	Ser	Arg	Gln	Leu	Trp	Trp	Gly
					85					90				95	
His	Gln	Ile	Pro	Ala	Tyr	Leu	Val	Xaa	Xaa	Gly	Pro	Cys	Ala	Xaa	Gly
					100					105				110	
Glu	Glu	Xaa	Thr	Cys	Trp	Val	Val	Gly	Arg	Ser	Gly	Ala	Glu	Ala	Arg

```

      115              120              125
Glu Leu Ala Ala Glu Leu Thr Gly Arg Gln Gly Ala Glu Pro Thr Leu
130              135              140
Glu Arg Asp Pro Asp Val Leu Asp Thr Trp Phe Ser Ser Ala Leu Phe
145              150              155              160
Pro Phe Ser Ala Leu Gly Trp Pro Gln Glu Thr Pro Asp Leu Ala Arg
      165              170              175
Phe Tyr Pro Leu Ser Leu Leu Glu Thr Gly Ser Asp Leu Leu Leu Phe
      180              185              190
Trp Val Gly Arg Met Val Met Leu Gly Thr Gln Leu Thr Gly Gln Leu
      195              200              205
Pro Phe Ser Lys Val Leu Leu His Pro Met Val Arg Asp Arg Gln Gly
      210              215              220
Arg Lys Met Ser Lys Ser Leu Gly Asn Val Leu Asp Pro Arg Asp Ile
      225              230              235
Ile Ser Gly Val Glu Met Gln Leu Leu Gln Glu Lys Leu Arg Ser Gly
      245              250              255
Asn Leu Asp Pro Ala Glu Leu Ala Ile Val Ala Ala Ala Gln Lys Lys
      260              265              270
Asp Phe Pro His Gly Ile Pro Glu Cys Gly Thr Asp Ala Leu Arg Phe
      275              280              285
Thr Leu Cys Ser His Gly Val Gln Ala Gly Asp Leu His Leu Ser Val
      290              295              300
Ser Glu Val Gln Ser Cys Arg His Phe Cys Asn Lys Ile Trp Asn Ala
      305              310              315
Leu Arg Phe Ile Leu Asn Ala Leu Gly Glu Lys Phe Val Pro Gln Pro
      325              330              335
Ala Glu Glu Leu Ser Pro Ser Ser Pro Met Asp Ala Trp Ile Leu Ser
      340              345              350
Arg Leu Ala Leu Ala Ala Gln Glu Cys Glu Arg Gly Phe Leu Thr Arg
      355              360              365
Glu Leu Ser Leu Val Thr His Ala Leu His His Phe Trp Leu His Asn
      370              375              380
Leu Cys Asp Val Tyr Leu Glu Ala Val Lys Pro Val Leu Trp His Ser
      385              390              395
Pro Arg Pro Leu Gly Pro Pro Gln Val Leu Phe Ser Cys Ala Asp Leu
      405              410              415
Gly Leu Arg Leu Leu Ala Pro Leu Met Pro Phe Leu Ala Glu Glu Leu
      420              425              430
Trp Gln Arg Leu Pro Pro Arg Pro Gly Cys Pro Pro Ala Pro Ser Ile
      435              440              445
Ser Val Ala Pro Tyr Pro Ser Ala Cys Ser Leu Glu His Trp Arg Gln
      450              455              460
Pro Glu Leu Glu Arg Arg Phe Ser Arg Val Gln Glu Val Val Gln Val
      465              470              475              480
Leu Arg Ala Leu Arg Ala Thr Tyr Gln Leu Thr Lys Ala Arg Pro Arg
      485              490              495
Val Leu Leu Gln Ser Ser Glu Pro Gly Asp Gln Gly Leu Phe Glu Ala
      500              505              510
Phe Leu Glu Pro Leu Gly Thr Leu Gly Tyr Cys Gly Ala Val Gly Leu
      515              520              525
Leu Pro Pro Gly Thr Ala Ala Pro Ser Gly Trp Ala Gln Ala Pro Leu
      530              535              540
Ser Asp Thr Ala Gln Val Tyr Met Glu Leu Gln Gly Leu Val Asp Pro

```

```

545          550          555          560
Gln Ile Gln Leu Pro Leu Leu Ala Ala Arg Arg Tyr Lys Leu Gln Lys
          565          570          575
Gln Leu Asp Ser Leu Thr Ala Arg Thr Pro Ser Glu Gly Glu Ala Gly
          580          585          590
Thr Gln Arg Gln Gln Lys Leu Ser Ser Leu Gln Leu Glu Leu Ser Lys
          595          600          605
Leu Asp Lys Ala Ala Ser His Leu Arg Gln Leu Met Asp Glu Pro Pro
          610          615          620
Ala Pro Gly Ser Pro Glu Leu
625          630

```

<210> 6099

<211> 3957

<212> DNA

<213> Homo sapiens

<400> 6099

```

ggggctgccc gggccgggac tgggggagcc gggcccgccg gccgcctgct gcctccgccc
60
gcgcgggggt ccccgccgc ccccgctgcc gtgtccctcg cggccggcca gccgcgtccc
120
ccagccccgg cctcccgccg acccatgccc gcccgtagcg gctactacga gatcgaccgc
180
accatcgcca agggcaactt cgcggtggtc aagcgggcca cgcacctcgt caccaaggcc
240
aagggtgcta tcaagatcat agataagacc cagctggatg aagaaaactt gaagaagatt
300
ttccgggaag ttcaaattat gaagatgctt tgccaccccc atatcatcag gctctaccag
360
gttatggaga cagaacggat gatttatctg gtgacagaat atgctagtgg aggggaaata
420
tttgaccacc tgggtggcca tggtagaatg gcagaaaagg aggcacgtcg gaagttaaaa
480
cagatcgta cagctgtcta tttttgtcac tgtcggaaca ttgttcacgt tgatttaaaa
540
gctgaaaaat tacttctgga tgccaatctg aatatcaaaa tagcagattt tggtttcagt
600
aacctcttca ctctgggcca gctgctgaag acctgggtgt gcagccctcc ctatgctgca
660
cctgaactct ttgaaggaaa agaatatgat gggcccaag tggacatctg gagccttgga
720
gttgtctctc acgtgcttgt gtgcggtgcc ctgccatttg atggaagcac actgcagaat
780
ctcggggccc gcgtgctgag tggaaagtcc cgcaccccat tttttatgtc cacagaatgt
840
gagcatttga tccgccatat gttggtgtta gatcccaata agcgccctcc catggagcag
900
atctgcaagc acaagtggat gaagctaggg gacgcgac ccaactttga cagggttaata
960
gctgaatgcc aacaactaaa ggaagaaaga cagggtggacc cctggaatga ggaatgcttc
1020
ttggccatgg aggacatggg actggacaaa gaacagacac tgcaggcgga gcaggcaggt
1080

```

actgctatga acatcagcgt tccccagggt cagctgatca acccagagaa ccaaatgtg
1140
gagccggatg ggacactgaa ttggacagt gatgaggtg aagagccttc cctgaagca
1200
ttgggtcgct atttgtcaat gaggaggcac acagtgggtg tggctgaccc acgcacggaa
1260
gttatggaag atctgcagaa gctcctacct ggctttcctg gagtcaaccc ccaggctcca
1320
ttcctgcagg tggcccttaa tgtgaacttc atgcacaacc tgttgctat gcaaaacttg
1380
caaccaaccg ggcaacttga gtacaaggag cagtctctcc tacagccgcc cagctacag
1440
ctgttgatg gaatggggccc ccttggccgg agggcatcag atggaggagc caacatccaa
1500
ctgcatgccc agcagctgct gaagcgccca cggggaccct ctccgcttgt caccatgaca
1560
ccagcagtgc cagcagttac ccctgtggac gaggagagct cagacgggga gccagaccag
1620
gaagctgtgc agagctctac ctacaaggac tccaacactc tgcacctccc tacggagcgt
1680
ttctccctg tgcgccggtt ctccagatggg gctgcgagca tccaggcctt caaagctcac
1740
ctggaaaaaa tgggcaacaa cagcagcatc aaacagctgc agcaggagtg tgagcagctg
1800
cagaagatgt acggggggca gattgatgaa agaaccctgg agaagacca gcagcagcat
1860
atgttatacc agcaggagca gcaccatcaa attctccagc aacaaattca agactctatc
1920
tgtctctctc agccatctcc acctcttcag gctgcagtgt aaaatcagcc agccctctct
1980
acccatcagc tccagaggtt aaggattcag ccttcaagcc cccccccaa ccaccccaac
2040
aaccatctct tcaggcagcc cagtaatagt cctccccca tgagcagtgc catgatccag
2100
ctcacggggg ctgcattctc ttcccagttt caaggcttac ctccccgag tgcaatcttt
2160
cagcagaac ctgagaactg ttccctctct ccaacgtgg cactaacctg cttgggtatg
2220
cagcagcctg ctcatgcaca gcaggtcacc atccaagtcc aagagcctgt tgacatgctc
2280
agcaacatgc caggcacagc tgcaggctcc agtgggcgag gcactccat cagccccagt
2340
gctggtcaga tgcagatgca gcaccgtacc aaacctgatg ccacctcag ctatgggac
2400
cgctccctgt ccaagcagct gagtgtctgac agtgcagagg ctccacagctt gaactgaa
2460
cggttctccc ctgctaacta cgaccaggcg catttacacc cccatctgtt ttcggaccag
2520
tccccgggtt cccccagcag ctacagccct tcaacaggag tggggtcttc tccaacccaa
2580
gccctgaaag tccctccact tgaccaatcc cccacctccc ctcccagtg acatcagcag
2640
ccgccacact ataccacgtc ggcactacag caggccctgc tgtctccca gccgcccagc
2700

tatacaagac accagcaggt accccacatc cttcaaggac tgctttctcc ccggcattcg
 2760
 ctcaccggcc actcggacat ccggctgccc ccaacagagt ttgcacagct cattaagg
 2820
 cagcagcaac aacggcagca gcagcagcaa cagcagcaac agcaagaata ccaggaaactg
 2880
 ttcaggcaca tgaaccaagg ggaatggggg agtctggctc ccagccttgg gggacagagc
 2940
 atgacagagc gccaggcttt atcttatcaa aatgctgact cttatcacca cagcatccag
 3000
 aacagcgacg atgcttatgt acagctggat aacttgccag gaatgagtct cgtggctggg
 3060
 aaagcaacta gctctgcccg gatgtcggat gcagttctca gtcagtcttc gctcatgggc
 3120
 agccagcagt ttcaggatgg ggaaaatgag gaatgtgggg caagcctggg aggtcatgag
 3180
 caccagacc tgagtgatgg cagccagcat ttaaactcct cttgctatcc atctacgtgt
 3240
 attacagaca ttctgctcag ctacaagcac cccgaagtct ccttcagcat ggagcaggca
 3300
 ggcggtgaac aagaaacaga gagagagcaa gaggtcccga gtccctcct agtctttcat
 3360
 cctgaatttg cacagaggaa agcgggtgccc cggcattggc atcctgatgt tgctggaggg
 3420
 atccccatgc accttgctct tctccactga tactggcagc tcggctcctg gacccaagat
 3480
 cccttgagtg gaattctgca gtgcaagagc ccttcgtggg agctgtccca tggttccatg
 3540
 gtccccagtc tccccctcac ttggtggggg caccaactac tcaccagaag ggggcttacc
 3600
 aagaaagccc taaaaagctg ttgacttatc tgcgcttggt ccaactctta tgcccccaac
 3660
 ctgccctacc accaccacgc gctcagcctg atgtgtttac atggtactgt atgtatggga
 3720
 gagcagactg caccgccag caacatcaga tgaagccag tgagcctact aaccgtgcca
 3780
 tcttgcaaac tacactttaa aaaaaactca ttgctttgta ttgtagtaac caatatgtgc
 3840
 agtatacgtt gaatgtatat gaacatactt tcctatttct gttctttgaa aatgtcagaa
 3900
 atattttttt ctttctcatt ttatgttgaa ctaaaaagga ttaaaaaaaa aatctcc
 3957

<210> 6100

<211> 1102

<212> PRT

<213> Homo sapiens

<400> 6100

Gly Ala Ala Gly Ala Gly Thr Gly Gly Ala Gly Pro Ala Gly Arg Leu
 1 5 10 15
 Leu Pro Pro Pro Ala Pro Gly Ser Pro Ala Ala Pro Ala Ala Val Ser
 20 25 30
 Pro Ala Ala Gly Gln Pro Arg Pro Pro Ala Pro Ala Ser Arg Gly Pro

	35					40					45				
Met	Pro	Ala	Arg	Ile	Gly	Tyr	Tyr	Glu	Ile	Asp	Arg	Thr	Ile	Gly	Lys
50					55					60					
Gly	Asn	Phe	Ala	Val	Val	Lys	Arg	Ala	Thr	His	Leu	Val	Thr	Lys	Ala
65					70					75					80
Lys	Val	Ala	Ile	Lys	Ile	Ile	Asp	Lys	Thr	Gln	Leu	Asp	Glu	Glu	Asn
				85						90					95
Leu	Lys	Lys	Ile	Phe	Arg	Glu	Val	Gln	Ile	Met	Lys	Met	Leu	Cys	His
				100						105					110
Pro	His	Ile	Ile	Arg	Leu	Tyr	Gln	Val	Met	Glu	Thr	Glu	Arg	Met	Ile
										120					125
Tyr	Leu	Val	Thr	Glu	Tyr	Ala	Ser	Gly	Gly	Glu	Ile	Phe	Asp	His	Leu
						135									140
Val	Ala	His	Gly	Arg	Met	Ala	Glu	Lys	Glu	Ala	Arg	Arg	Lys	Phe	Lys
145						150									160
Gln	Ile	Val	Thr	Ala	Val	Tyr	Phe	Cys	His	Cys	Arg	Asn	Ile	Val	His
						165									175
Arg	Asp	Leu	Lys	Ala	Glu	Asn	Leu	Leu	Leu	Asp	Ala	Asn	Leu	Asn	Ile
						180									190
Lys	Ile	Ala	Asp	Phe	Gly	Phe	Ser	Asn	Leu	Phe	Thr	Pro	Gly	Gln	Leu
															205
Leu	Lys	Thr	Trp	Cys	Gly	Ser	Pro	Pro	Tyr	Ala	Ala	Pro	Glu	Leu	Phe
						215									220
Glu	Gly	Lys	Glu	Tyr	Asp	Gly	Pro	Lys	Val	Asp	Ile	Trp	Ser	Leu	Gly
225						230									240
Val	Val	Leu	Tyr	Val	Leu	Val	Cys	Gly	Ala	Leu	Pro	Phe	Asp	Gly	Ser
						245									255
Thr	Leu	Gln	Asn	Leu	Arg	Ala	Arg	Val	Leu	Ser	Gly	Lys	Phe	Arg	Ile
						260									270
Pro	Phe	Phe	Met	Ser	Thr	Glu	Cys	Glu	His	Leu	Ile	Arg	His	Met	Leu
															285
Val	Leu	Asp	Pro	Asn	Lys	Arg	Leu	Ser	Met	Glu	Gln	Ile	Cys	Lys	His
						295									300
Lys	Trp	Met	Lys	Leu	Gly	Asp	Ala	Asp	Pro	Asn	Phe	Asp	Arg	Leu	Ile
305						310									320
Ala	Glu	Cys	Gln	Gln	Leu	Lys	Glu	Glu	Arg	Gln	Val	Asp	Pro	Leu	Asn
						325									335
Glu	Asp	Val	Leu	Leu	Ala	Met	Glu	Asp	Met	Gly	Leu	Asp	Lys	Glu	Gln
						340									350
Thr	Leu	Gln	Ala	Glu	Gln	Ala	Gly	Thr	Ala	Met	Asn	Ile	Ser	Val	Pro
															365
Gln	Val	Gln	Leu	Ile	Asn	Pro	Glu	Asn	Gln	Ile	Val	Glu	Pro	Asp	Gly
						375									380
Thr	Leu	Asn	Leu	Asp	Ser	Asp	Glu	Gly	Glu	Glu	Pro	Ser	Pro	Glu	Ala
385						390									400
Leu	Val	Arg	Tyr	Leu	Ser	Met	Arg	Arg	His	Thr					

465						470										475														480
Leu	Leu	Asn	Gly	Met	Gly	Pro	Leu	Gly	Arg	Arg	Ala	Ser	Asp	Gly	Gly															
					485											490														
Ala	Asn	Ile	Gln	Leu	His	Ala	Gln	Gln	Leu	Leu	Lys	Arg	Pro	Arg	Gly															
				500					505							510														
Pro	Ser	Pro	Leu	Val	Thr	Met	Thr	Pro	Ala	Val	Pro	Ala	Val	Thr	Pro															
				515				520								525														
Val	Asp	Glu	Glu	Ser	Ser	Asp	Gly	Glu	Pro	Asp	Gln	Glu	Ala	Val	Gln															
				530				535								540														
Ser	Ser	Thr	Tyr	Lys	Asp	Ser	Asn	Thr	Leu	His	Leu	Pro	Thr	Thr	Glu	Arg														
				545				550								555														
Phe	Ser	Pro	Val	Arg	Arg	Phe	Ser	Asp	Gly	Ala	Ala	Ser	Ile	Gln	Ala															
				565												570														
Phe	Lys	Ala	His	Leu	Glu	Lys	Met	Gly	Asn	Asn	Ser	Ser	Ile	Lys	Gln															
				580				585								590														
Leu	Gln	Gln	Glu	Cys	Glu	Gln	Leu	Gln	Lys	Met	Tyr	Gly	Gly	Gln	Ile															
				595				600								605														
Asp	Glu	Arg	Thr	Leu	Glu	Lys	Thr	Gln	Gln	Gln	His	Met	Leu	Tyr	Gln															
				610				615								620														
Gln	Glu	Gln	His	His	Gln	Ile	Leu	Gln	Gln	Gln	Ile	Gln	Asp	Ser	Ile															
				630				635								640														
Cys	Pro	Pro	Gln	Pro	Ser	Pro	Pro	Leu	Gln	Ala	Ala	Cys	Glu	Asn	Gln															
				645												650														
Pro	Ala	Leu	Leu	Thr	His	Gln	Leu	Gln	Arg	Leu	Arg	Ile	Gln	Pro	Ser															
				660												665														
Ser	Pro	Pro	Pro	Asn	His	Pro	Asn	Asn	His	Leu	Phe	Arg	Gln	Pro	Ser															
				675				680								685														
Asn	Ser	Pro	Pro	Pro	Met	Ser	Ser	Ala	Met	Ile	Gln	Pro	His	Gly	Ala															

900 905 910
 Gly Leu Leu Ser Pro Arg His Ser Leu Thr Gly His Ser Asp Ile Arg
 915 920
 Leu Pro Pro Thr Glu Phe Ala Gln Leu Ile Lys Arg Gln Gln Gln
 930 935
 Arg Gln Gln Gln Gln Gln Gln Gln Gln Gln Tyr Gln Glu Leu
 945 950 955 960
 Phe Arg His Met Asn Gln Gly Asp Ala Gly Ser Leu Ala Pro Ser Leu
 965 970 975
 Gly Gly Gln Ser Met Thr Glu Arg Gln Ala Leu Ser Tyr Gln Asn Ala
 980 985 990
 Asp Ser Tyr His His Thr Ile Gln Asn Ser Asp Asp Ala Tyr Val Gln
 995 1000 1005
 Leu Asp Asn Leu Pro Gly Met Ser Leu Val Ala Gly Lys Ala Leu Ser
 1010 1015 1020
 Ser Ala Arg Met Ser Asp Ala Val Leu Ser Gln Ser Ser Leu Met Gly
 1025 1030 1035 1040
 Ser Gln Gln Phe Gln Asp Gly Glu Asn Glu Glu Cys Gly Ala Ser Leu
 1045 1050 1055
 Gly Gly His Glu His Pro Asp Leu Ser Asp Gly Ser Gln His Leu Asn
 1060 1065 1070
 Ser Ser Cys Tyr Pro Ser Thr Cys Ile Thr Asp Ile Leu Leu Ser Tyr
 1075 1080 1085
 Lys His Pro Glu Val Ser Phe Ser Met Glu Gln Ala Gly Val
 1090 1095 1100

<210> 6101

<211> 1447

<212> DNA

<213> Homo sapiens

<400> 6101

tttttttttt tttttttttt tttttttttt tttttttttt actgcaacca gtacttatgt
 60
 ttattactgt acctaataaa cagcccgagc tggatgatcc ttttacttta gtagcctccc
 120
 catctagaaa tatactccgt gatctttctt gatggccaga ctgtgtaaaa ttcatacagt
 180
 gtttactaca gggatcccca aatattgtta gttgaatgaa caaacacaca ttcaaggag
 240
 ggcactacag tgagtagatg aacagttttc tgataggaga ttgtacaagt aatgttttca
 300
 ccagtgtatt ttaggacagc agattcagat taatgcgctg ggactgaatg caaatagtaa
 360
 aattacaat ataaagtaaa aatttggaa ctttggccaa gagaggaata ataaattgat
 420
 ttaataattt gaaagaactg taagggttag gttttgttct tatttttagt gcgactgaga
 480
 ttggagtctg tttgtagaca tatctgaaaa aagtgaaggg ggagatggaa gatggtaaat
 540
 gccaggaaaa agatggaagg ataaatcagt gtaataaaaa ggagcacttc tttttcgcca
 600
 acagaagtaa aggtaaaggt taagtgtctg agttaacgaa tggattgttg acctctgggg
 660

aggggtgctcc catcagctca gctttgtgac gacctaagaa tatcccttcc acacctttcc
 720
 tgatccaate gtcttggtcg cataaaacca cctaaatcaa tcaactgtta cacttccctt
 780
 agtgctagga catattcata taactccccc gtattaaatg aaaatacatc catctaaaaa
 840
 taaaacaaca agattgctgc tacaccaaga aaggatttta aaaaggcctg ttcacaagct
 900
 aagtgagggc cagaggaaaag gtgttcgttt aaactgaaat tcgagctgcg ataacacctc
 960
 ctaatgcaat caaacgtgtg tgcagcacac ttcttaggag atcggggtta acggcaggga
 1020
 ttgggtaagg tgagaatctg gcttggcggc tccggccccg gccatctggt tcccttgggc
 1080
 tccggccgcc accatccact cgacggctct cgcccccgaac gcttggctgc accgcctgcc
 1140
 gaggtcctag atgaatcgct tcaggcctgg aaacgaggaa gccgtctccg gagaccatcg
 1200
 ccaagcgtga cgcccgcggt ctgaggctgc catgggaaga gcggtaggcc accctgctcc
 1260
 tctgatcacc ggaggacagg gacacattgt tcagggccat attcaaacac tgcccgcagt
 1320
 acttcggtta cgtcccttgg tgaaggcagg ccttcgcggg ctcccagat cagtccagcc
 1380
 tgtgtcggac cggatgacta agcacacagg aaccataac tgagctcgcg aagagccaga
 1440
 agccggcc
 1447

<210> 6102

<211> 123

<212> PRT

<213> Homo sapiens

<400> 6102

Met Ala Leu Asn Asn Val Ser Leu Ser Ser Gly Asp Gln Arg Ser Arg
 1 5 10 15
 Val Ala Tyr Arg Ser Ser His Gly Asp Leu Arg Pro Arg Ala Ser Ala
 20 25 30
 Leu Ala Met Val Ser Gly Asp Gly Phe Leu Val Ser Arg Pro Glu Ala
 35 40 45
 Ile His Leu Gly Pro Arg Gln Ala Val Arg Pro Ser Val Arg Ala Glu
 50 55 60
 Ser Arg Arg Val Asp Gly Gly Arg Ser Pro Arg Glu Pro Asp Gly
 65 70 75 80
 Arg Gly Arg Ser Arg Gln Ala Arg Phe Ser Pro Tyr Pro Ile Pro Ala
 85 90 95
 Val Glu Pro Asp Leu Leu Arg Ser Val Leu Gln Gln Arg Leu Ile Ala
 100 105 110
 Leu Gly Gly Val Ile Ala Ala Arg Ile Ser Val
 115 120

<210> 6103

<211> 309

<212> DNA

<213> Homo sapiens

<400> 6103

agatcttctt tttgagttct aggttctctg gaacacactc ctgaatgtgc acagcgccct
 60
 ctactgcttc ggccagggtt ccacagccac tgatgagaga cagctccagc cacaatggac
 120
 agaacctatg ccttgatgaa gaagattggg cagtccccag tgagagtcct gaaggagatt
 180
 gacggcttcg tcttgaaccg cctgcagtac gccgtcatca gtgaggcctg gagactgggtg
 240
 gaggaagaaa tagtatctcc tagcgaccta gacctgtgca tgtcagacgg gctggggcag
 300
 cggtacgag
 309

<210> 6104

<211> 71

<212> PRT

<213> Homo sapiens

<400> 6104

Glu	Thr	Ala	Pro	Ala	Thr	Met	Asp	Arg	Thr	Tyr	Ala	Leu	Met	Lys	Lys
1				5					10					15	
Ile	Gly	Gln	Ser	Pro	Val	Arg	Val	Leu	Lys	Glu	Ile	Asp	Gly	Phe	Val
			20					25					30		
Leu	Asn	Arg	Leu	Gln	Tyr	Ala	Val	Ile	Ser	Glu	Ala	Trp	Arg	Leu	Val
		35					40						45		
Glu	Glu	Glu	Ile	Val	Ser	Pro	Ser	Asp	Leu	Asp	Leu	Val	Met	Ser	Asp
		50				55					60				
Gly	Leu	Gly	Met	Arg	Tyr	Ala									
65						70									

<210> 6105

<211> 1846

<212> DNA

<213> Homo sapiens

<400> 6105

ncaccagcag cagcaggcag ccttactcca cggggagggc gcctcacagc agccgaggca
 60
 cagggggccag aaccggggat gcccccaac cctatgaact caacacagcc atcaactgca
 120
 gggatgaagt ggtgtctccc ctccatctg ctctgcaggg gtccctcagg ctccctatca
 180
 gccctccagc ctgcctcagt tatctctgca ccccatctt cctcctcccg acatcgcaaa
 240
 cgtcgagga cttccagcaa gtcggaggca ggggctaggg gtggaggcca gggttccaag
 300
 gaaaagggcc gaggagggtt gggaggccgc caccaccacc accaccact cctcgagca
 360
 ggcttcaaaa agcaacagcg caagttccag tatgggaatt attgcaaaata ctatgggtac
 420

cgcaatcctt cctgtgagga tgggcgcctt cgggtgttga agcctgagtg gtttggggg
 480
 cgggacgtcc tagatctggg ctgcaatgtg ggccatctga ccctgagcat tgccctgcaag
 540
 tggggcccggt cccgcattgt gggcctggat atcgattccc ggctcatcca ttctgcccgc
 600
 caaaacatcc gacactacct ttccgaggag ctgcgtctcc caccacagac ttctggaaggg
 660
 gaccgcgggg cagaggggtga ggaaggagacc accaccgttc gaaagaggag ctgcttccca
 720
 gcctcgctga ctgccagccg gggctcccatc gctgcccccc aagtgcctt ggatggagcg
 780
 gacacatcag tcttccccc aaatgttgtc ttcgtaacgg gtaattatgt gctggatcga
 840
 gatgacctgg tggaggccca aacacctgag tatgatgtgg tgctctgcct cagcctcacc
 900
 aagtggtgtc atctgaactg gggagacgag ggctgaagc gcatgtttcg ccggaatcac
 960
 cggcacctac gccctggggg catcctgggtc ctgagagccc aacctgggtc gtcgtatggc
 1020
 aagagaaaga ctcttacaga aacgatctac aagaactact accgaatcca attgaagcca
 1080
 gagcagttca gttcctacct gacatcccca gacgtgggct tctccagcta tgagcttggtg
 1140
 gccacacccc acaacacctc taaaggcttc cagcgtcctg tgtacctgtt ccacaaggcc
 1200
 cgatccccc gccactaagt gggcccctaa acagaaagtg tgaagaggct gccctcgctg
 1260
 ctcataagga cctgggggaa gaggaaagtg tcccaaggtc ttctctttct gactccaaaa
 1320
 atagtttcct ttcttggtac tgcaaaagaa gctttttctc cgtcgctgco tcagcctcct
 1380
 ccttatgcct ctggcacctg cgcagcaagg ctggctgtgc tggagtcacc atcatcttcc
 1440
 tctccccag cctccaggc tggatggcat ggactgtttg ctgacctgtc ttctcttagg
 1500
 gcatgggagg tgggaggata tcaaattctc tagcccttcc ctctattctc ctagcccttc
 1560
 tattctccca aggagagaga ttccatttcc tctcggccca ttgtacctga ctcttgctcc
 1620
 tagctgcatt tcagtgagacc atggatagag ggactgaggg ttgacggggg aagactggca
 1680
 gggaggcaag cagggtactgt gaaaatcctt ccttttgccc tccccagtg ggagaggggg
 1740
 ttgggttttc aatgtgagaa cagcacaata aacttgatgt ctagggcagt ggcccccaaa
 1800
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaa
 1846

<210> 6106

<211> 405

<212> PRT

<213> Homo sapiens

<400> 6106

```

Xaa Pro Ala Ala Ala Gly Ser Leu Thr Pro Arg Gly Gly Arg Leu Thr
 1              5              10              15
Ala Ala Ala Ala Gln Gly Pro Glu Pro Gly Met Pro Pro Asn Pro Met
 20
Asn Ser Thr Gln Pro Ser Thr Ala Gly Met Lys Trp Cys Leu Pro Phe
 35              40              45
His Leu Leu Cys Arg Gly Pro Ser Gly Ser Leu Ser Ala Pro Pro Ala
 50              55              60
Ala Ser Val Ile Ser Ala Pro Pro Ser Ser Ser Arg His Arg Lys
 65              70              75              80
Arg Arg Arg Thr Ser Ser Lys Ser Glu Ala Gly Ala Arg Gly Gly Gly
 85              90              95
Gln Gly Ser Lys Glu Lys Gly Arg Gly Ser Trp Gly Gly Arg His His
 100              105              110
His His His Pro Leu Pro Ala Ala Gly Phe Lys Lys Gln Gln Arg Lys
 115              120              125
Phe Gln Tyr Gly Asn Tyr Cys Lys Tyr Tyr Gly Tyr Arg Asn Pro Ser
 130              135              140
Cys Glu Asp Gly Arg Leu Arg Val Leu Lys Pro Glu Trp Phe Arg Gly
 145              150              155              160
Arg Asp Val Leu Asp Leu Gly Cys Asn Val Gly His Leu Thr Leu Ser
 165              170              175
Ile Ala Cys Lys Trp Gly Pro Ser Arg Met Val Gly Leu Asp Ile Asp
 180              185              190
Ser Arg Leu Ile His Ser Ala Arg Gln Asn Ile Arg His Tyr Leu Ser
 195              200              205
Glu Glu Leu Arg Leu Pro Pro Gln Thr Leu Glu Gly Asp Pro Gly Ala
 210              215              220
Glu Gly Glu Glu Gly Thr Thr Thr Val Arg Lys Arg Ser Cys Phe Pro
 225              230              235              240
Ala Ser Leu Thr Ala Ser Arg Gly Pro Ile Ala Ala Pro Gln Val Pro
 245              250              255
Leu Asp Gly Ala Asp Thr Ser Val Phe Pro Asn Asn Val Val Phe Val
 260              265              270
Thr Gly Asn Tyr Val Leu Asp Arg Asp Asp Leu Val Glu Ala Gln Thr
 275              280              285
Pro Glu Tyr Asp Val Val Leu Cys Leu Ser Leu Thr Lys Trp Val His
 290              295              300
Leu Asn Trp Gly Asp Glu Gly Leu Lys Arg Met Phe Arg Arg Ile Tyr
 305              310              315              320
Arg His Leu Arg Pro Gly Gly Ile Leu Val Leu Glu Pro Gln Pro Trp
 325              330              335
Ser Ser Tyr Gly Lys Arg Lys Thr Leu Thr Glu Thr Ile Tyr Lys Asn
 340              345              350
Tyr Tyr Arg Ile Gln Leu Lys Pro Glu Gln Phe Ser Ser Tyr Leu Thr
 355              360              365
Ser Pro Asp Val Gly Phe Ser Ser Tyr Glu Leu Val Ala Thr Pro His
 370              375              380
Asn Thr Ser Lys Gly Phe Gln Arg Pro Val Tyr Leu Phe His Lys Ala
 385              390              395              400
Arg Ser Pro Ser His
 405

```

<210> 6107
 <211> 896
 <212> DNA
 <213> Homo sapiens

<400> 6107
 nnaaatttga cccgcacagt gatgaggcca gggctgggag ggaggcaggg tctatctcca
 60
 gatctcaggg gggcctctgg actgctgctg cctgcacctg ctgtgtcttt gggcaggcct
 120
 tgggatgtcaa ggagatgctc aaggctgggc tcaacaccac cccagctcc agcctcccca
 180
 gtggagtctc cccgaccttc acccgctctc tcagccttct catcattacc ctctgatgga
 240
 tgggggagtt cagttggctc ggggttgctt tggcctgcca ccaggtggtc cacatgcccc
 300
 aggtggagga cggatgtgtc gcctgctgac acaatagcgc ccaggagctg gttgtactcg
 360
 ctgtctgcta cgtaggtaga gagccaagct aggaccaagg ctagaatcag caccaccaca
 420
 cctgccacca ccatcacctc attaccaca cctcaatga gggtgacatc agtgaccccc
 480
 ttagccgacc ctactctcca ctggccggga caactggtct tatcacggag gctggggcca
 540
 ggcagccctt cggttcgggt gggcccgagc cccagtccaa cgccgagga ataggacct
 600
 ccaaaagcgg aaccttcgcc tcagaaaaag ggtgcgggac cctcctcac cgtgcggtca
 660
 cggtagcgac agggtagatc acaggctgag ggacagagca aagaccctcg aggcgggaca
 720
 cctgggggtc tgccggggcc cccccacga gagttccctg tgtctgtgcc aatcgttttc
 780
 gtctttcttt gccgcagttt cttttcctgt aaatcatggt taatgacatt aaccttttta
 840
 ccatcagggg ttagttgtgg ttgtgataaa taattactac cgttattaag caattg
 896

<210> 6108
 <211> 124
 <212> PRT
 <213> Homo sapiens

<400> 6108
 Xaa Asn Leu Thr Arg Thr Val Met Arg Pro Gly Leu Gly Gly Arg Gln
 1 5 10 15
 Gly Leu Ser Ser Asp Leu Arg Gly Ala Ser Gly Leu Leu Leu Pro Ala
 20 25 30
 Pro Ala Cys Leu Leu Gly Arg Pro Trp Met Ser Arg Arg Cys Ser Arg
 35 40 45
 Leu Gly Ser Thr Pro Pro Pro Ala Pro Ala Ser Pro Val Glu Ser Pro
 50 55 60
 Arg Pro Ser Pro Ala Ser Ser Ala Phe Ser Ser Leu Pro Ser Asp Gly
 65 70 75 80
 Trp Gly Ser Ser Val Gly Ser Gly Leu Pro Trp Pro Ala Thr Arg Trp

	85		90		95
Ser Thr Cys	Pro Arg Trp Arg Thr	Asp Val Ser	Pro Ala Asp	Thr Ile	
	100	105	110		
Ala Pro Arg	Ser Trp Leu Leu Pro	Leu Ser Ala Thr			
	115	120			

<210> 6109
 <211> 2087
 <212> DNA
 <213> Homo sapiens

<400> 6109
 aggccggaag cgcgcgagaga ccatgtagtg agaccctcgc gaggtctgag agtcactgga
 60
 gctaccagaa gcatcatggg gccttgggga gagccagagc tcttggtgtg gcgccccgag
 120
 ggtagcttca gaggctccag tgccctgtggg gctggaggtg aagttggggg ccctgggtgct
 180
 gctgtgtgtg tcaccctcct ctgcagcctg gtgcccatct gtgtgtctgc ccggccaggga
 240
 gctaaccatg aaggctcagc ttcccgccag aaagccctga gcctagtaag ctgttttcgcg
 300
 gggggcgctt ttttggccac ttgtctcctg gacctgtgc ctgactacct ggctgccata
 360
 gatgaggccc tggcagcctt gcacgtgacg ctccagtcc cactgcaaga gttcatcctg
 420
 gccatgggct tcttcctggt cctgggtgatg gacgagatca cactggccta caaggagcag
 480
 tcaggggcgt caccctctgga ggaacaagg gctctgctgg gaacagtga tggtagggccg
 540
 cagcattggc atgatgggcc aggggtccca caggcgagtg gagccccagc aaccccccta
 600
 gccttgctgt cctgtgtact ggtgttctcc ctggccctcc actcctgtgt cgaggggctg
 660
 gcggtagggc tgcagcgaga ccgggctcgg gccatggagc tgtgcttggc ttgtgtgtc
 720
 cacaagggca tcttggtgtg cagcctgtcc ctgcggctgt tgcagagcca ccttagggca
 780
 caggtggttg ctggctgttg gatcctcttc tcattgatga caccctctagg catcgggctg
 840
 ggtgcagctc tggcagagtc ggcaggacct ctgcaccagc tggccagtc tytgctlagg
 900
 ggcattggcag ctggcacctt tctctatata acctttcttg aaatcctgcc ccaggagctg
 960
 gccagttctg agcaaaggat cctcaaggtc attctgtctc tagcaggctt tgccctgtc
 1020
 actggcctgc tcttcatcca aatctagggg gcttcaagag aggggcaggg gagattgatg
 1080
 atcagtgccc cctgttctcc ctctccctccc ccagttgtgg ggaataggaa ggaaggggga
 1140
 agggaaatac tgaggaccaa aaagtctctt gggagctaaa gatagagctt ttggggctat
 1200
 ctgactaatg agaggggaagt gggcagacaa gaggctggcc ccagtcceaa ggaacaagag
 1260

atgggtcaagt cgctagagac atatcagggg acattaggat tggggaagac acttgactgc
 1320
 tagaatcaga ggttggacac tatacataag gacaggctca catgggaggo tggaggtggg
 1380
 taccacagctg ctgtggaacg ggtatggaga ggtcataaac ctagagtcag tgtcctgttg
 1440
 gtccctagccc atttcagcac cctgccactt ggagtggacc cctcctactc ttcttagcgc
 1500
 ctaccctcat acctatctcc ctccctccat ctccctaggg actggcgcca aatgggtctc
 1560
 ccctgccaat tttgttatct tctctggcct ctccagtcct gcttactcct ctatttttaa
 1620
 agtgccaaac aaatccctt cctctttctc aaagcacagt aatgtggcac tgagccctac
 1680
 ccagcacctc agtgaagggg gcctgcttgc tctttatctt ggtcccgcat cctgggggtg
 1740
 ggcagaaata ttttctgggc tggggtagga ggaaggtgtg tgcagccatc tactgctgct
 1800
 gtaccctagg aatatgggga catggacatg gtgtcccatg cccagatgat aaacactgag
 1860
 ctgcccanaac atttttttaa ataccocga ggagcccaag ggggaagggc aatgcctacc
 1920
 cccagcgta tttttgggga gggagggtg tgcataggga catattcttt agaattctatt
 1980
 ttattaactg acctgttttg ggacctgtta cccaaataaa agatgtttct agacatctgt
 2040
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaa
 2087

<210> 6110

<211> 323

<212> PRT

<213> Homo sapiens

<400> 6110

Met Gly Pro Trp Gly Glu Pro Glu Leu Leu Val Trp Arg Pro Glu Gly
 1 5 10 15
 Ser Phe Arg Ala Ser Ser Ala Cys Gly Ala Gly Gly Glu Val Gly Gly
 20 25 30
 Pro Gly Ala Ala Ala Gly Leu Thr Leu Leu Cys Ser Leu Val Pro Ile
 35 40 45
 Cys Val Leu Arg Arg Pro Gly Ala Asn His Glu Gly Ser Ala Ser Arg
 50 55 60
 Gln Lys Ala Leu Ser Leu Val Ser Cys Phe Ala Gly Gly Val Phe Leu
 65 70 75 80
 Ala Thr Cys Leu Leu Asp Leu Leu Pro Asp Tyr Leu Ala Ala Ile Asp
 85 90 95
 Glu Ala Leu Ala Ala Leu His Val Thr Leu Gln Phe Pro Leu Gln Glu
 100 105 110
 Phe Ile Leu Ala Met Gly Phe Phe Leu Val Leu Val Met Glu Gln Ile
 115 120 125
 Thr Leu Ala Tyr Lys Glu Gln Ser Gly Pro Ser Pro Leu Glu Glu Thr
 130 135 140
 Arg Ala Leu Leu Gly Thr Val Asn Gly Gly Pro Gln His Trp His Asp


```

145          150          155          160
Gly Pro Gly Val Pro Gln Ala Ser Gly Ala Pro Ala Thr Pro Ser Ala
          165          170          175
Leu Arg Ala Cys Val Leu Val Phe Ser Leu Ala Leu His Ser Val Phe
          180          185          190
Glu Gly Leu Ala Val Gly Leu Gln Arg Asp Arg Ala Arg Ala Met Glu
          195          200          205
Leu Cys Leu Ala Leu Leu Leu His Lys Gly Ile Leu Ala Val Ser Leu
          210          215          220
Ser Leu Arg Leu Leu Gln Ser His Leu Arg Ala Gln Val Val Ala Gly
          225          230          235
Cys Gly Ile Leu Phe Ser Cys Met Thr Pro Leu Gly Ile Gly Leu Gly
          245          250          255
Ala Ala Leu Ala Glu Ser Ala Gly Pro Leu His Gln Leu Ala Gln Ser
          260          265          270
Val Leu Glu Gly Met Ala Ala Gly Thr Phe Leu Tyr Ile Thr Phe Leu
          275          280          285
Glu Ile Leu Pro Gln Glu Leu Ala Ser Ser Glu Gln Arg Ile Leu Lys
          290          295          300
Val Ile Leu Leu Leu Ala Gly Phe Ala Leu Leu Thr Gly Leu Leu Phe
          305          310          315          320
Ile Gln Ile

```

<210> 6111

<211> 1706

<212> DNA

<213> Homo sapiens

<400> 6111

```

nnagatctgc ctgcctctct gcccccaaag tggtagggatt acaggtgtga gccactgtct
60
ccagccaaga aattctttat atgtagatata tattttcttg tcaagttcag atgttgggaaa
120
taacttgcca ttgttctatt ctgtctcttg ttgtttttca tataatagaa atccccccaa
180
tgttttatat cttttatgtc tttattttgt ttgtttttgt ttttgagatg gaggtttccct
240
cttggttccc aggctggagt gnagtggcac agtctcgctt cactgcaacc tccacttccct
300
gggttcaagc agttctctgt ccgcagctcc ccaagtagct gggactacag gcattgcgcca
360
ccacgccagg ctaatttttg tatttttagt agagatgggg ttaccattg ttggccggggc
420
tggtctcaaa ctcctgacct caggcgatcc acccacctca gcgtcccaaa gtgctgggat
480
tataggcgtg agccaccgca cctggcctat gagggtgttt ttaattagga acaaatctaa
540
tggaaggag agttgactga agttggccca caggattgtg agctgggcag tgccttctag
600
aaggcttgcc accttgggac gccccagttt actgggggtg cttgaggagt gcagaaggct
660
ttctggcagc tgcctgggtt tggccagacc ctgcctcccc tcccgccggc caacctctag
720

```

tcccccttccct gctcccaactt gcattcaggg gtggctgctg ttctgagaac attagaactg
 780
 ggaagagaga tggagtcaca tggatttttg gtgggcatta ttctgaactt togtatocaa
 840
 gttagtcccc cttattccac tgtggcattg cgtttctaag cagttacctg atgcctgtg
 900
 ctgaagagct gctcacagga ggcgggcg gcccctggac tgccccttgc attaggtctt
 960
 gtgtttgatg tgttcttggt aatttacttt gtcagaacaa aatatttacg cgttgggttc
 1020
 aggaattttct tttagctccc catctggctg tgaatttcag gaaacctccc gttgcctagt
 1080
 aatcaccccca tgtagtgta cattgtgaca aagtgcattc gaccactaag gggccccctt
 1140
 ggtgacccca gcacattcac agcagtgta aaatggcctg cattttggag atgctggctg
 1200
 gcctttcagt gcctcccagg aagacacatg gcctttccct cttcagatgc ctgaaggagg
 1260
 tgccttgagg caggtgatgt gctgggagtg tggggggcct cctctggcc cggggccct
 1320
 ctgtggacct tggtccctc cgtggacctg ggcttcgttg tgagcactgc agcctccctg
 1380
 ggcattccct ccagcgccag caccactgca acatatagac ctgagtgcata ttgtattttg
 1440
 gcttggtgtg tatgctcttc attgtgtaaa attgctgttc ttttgacaat ttaagtgtt
 1500
 gttttgttta ctgtaagttt gaaaataaaa atgaagaaaa aaaattccaa tgactgtgct
 1560
 gtggttgagg actttattta ccaagatgtt tactcttctt tccccctcc attttaggga
 1620
 gctgtgtcac tctctctccc cccagtgct ttgtagtctc tctatgtca taataaagct
 1680
 acattttctc tgaaaaaaaaa aaaaaa
 1706

<210> 6112

<211> 110

<212> PRT

<213> Homo sapiens

<400> 6112

Met	Ser	Leu	Phe	Cys	Phe	Val	Leu	Phe	Leu	Arg	Trp	Ser	Phe	Pro	Leu
1			5						10					15	
Val	Ala	Gln	Ala	Gly	Val	Xaa	Trp	His	Ser	Leu	Gly	Ser	Leu	Gln	Pro
		20					25						30		
Pro	Leu	Pro	Gly	Phe	Lys	Gln	Phe	Ser	Cys	Arg	Ser	Leu	Pro	Ser	Ser
		35				40						45			
Trp	Asp	Tyr	Arg	His	Ala	Pro	Pro	Arg	Gln	Ala	Asn	Phe	Cys	Ile	Phe
	50				55					60					
Ser	Arg	Asp	Gly	Val	Ser	Pro	Cys	Trp	Pro	Gly	Trp	Ser	Gln	Thr	Pro
	65				70					75				80	
Asp	Leu	Arg	Arg	Ser	Thr	His	Leu	Ser	Val	Pro	Lys	Cys	Trp	Asp	Tyr
			85						90				95		
Arg	Arg	Glu	Pro	Pro	His	Leu	Ala	Tyr	Glu	Trp	Ser	Phe	Asn		

100

105

110

<210> 6113

<211> 1095

<212> DNA

<213> Homo sapiens

<400> 6113

nncggcgcc aagcgatccc tgctccgcgc gacactcgtt gcccgccac gcagagaggc
60
ggtgacgcac ttatcggcgg cagcgtaagt gcgtgacgct cgtcagtggt ttcagttcac
120
acgtggcgcc agcggaggca ggttgatgtg ttgtgtcttc ctctacagc caatatgaaa
180
aggcctagta agtggggctg ggaggcgggc gtggagggaac ccacgtctgg aagttgctgc
240
agccaccacg acgctcttct acggctacgg ctttgtctct gctggtatgg ggggtggagc
300
atacgcgtag gccttggccc tatttctctg tagaacggag agttggaagt ccctacggcg
360
atcatgttaa cgcgcggggc tcattctcgc gaacgaagcc gggcagaggg tggggaagac
420
taggctagat ttctgtaagg aagcagcgtc tgagccaggt ttgagggcca atatttctct
480
tcgctggcca cgtgcagact gggcagggtg agagctgaga atcgctctcc agactcagtg
540
ttctctctct gccttatgat tcgtgctgtt tgacacgaag tggttgtcgt ttgtgtctc
600
atacgtctgt gtgtatgac ccattctaat attgtgaggg taagtgcagg gaattttgac
660
tccattctgg atctactgaa ttaattctc tgggatttga aagtagcacg tatgtttgca
720
ttaggcattt cgcattagac ttaacgttag gtttggtagc caataacaca agaaaaggat
780
ataactccat agtgcgttaa ccagaaacta atcatttggg ttaacagatt tgtgatgtgt
840
ttctttttag agttaaagaa agcaagtaaa cgcattgacat gccataagcg gtataaaatc
900
caaaaaaagg ttcgagaaca tcactgaaaa ttaagaaggg aggctaaaaa gcggggtcac
960
aagaagccta ggaagacccc aggagttcca aacagtgtc cctttaagga ggctcttctt
1020
gaggaagctg agctaaggaa acagaggctt gaagaactaa aacagcagca gaaacttgac
1080
aggcagaagg aacta
1095

<210> 6114

<211> 87

<212> PRT

<213> Homo sapiens

<400> 6114

Met Cys Phe Phe Val Glu Leu Lys Lys Ala Ser Lys Arg Met Thr Cys

```

      1           5           10           15
His Lys Arg Tyr Lys Ile Gln Lys Lys Val Arg Glu His His Arg Lys
      20           25           30
Leu Arg Lys Glu Ala Lys Lys Arg Gly His Lys Lys Pro Arg Lys Asp
      35           40           45
Pro Gly Val Pro Asn Ser Ala Pro Phe Lys Glu Ala Leu Leu Glu Glu
      50           55           60
Ala Glu Leu Arg Lys Gln Arg Leu Glu Glu Leu Lys Gln Gln Gln Lys
      65           70           75           80
Leu Asp Arg Gln Lys Glu Leu
      85

```

<210> 6115

<211> 411

<212> DNA

<213> Homo sapiens

<400> 6115

```

gcgcgcctgg ccccgccagg gcctaagttc cctgcactcg ctccccgcc tgcgcgcggc
60
gccgcgcgcc gcagccctcc ttctcgtggg cgctggggaa gaaactcgtc ggcgggtcta
120
actgtggcgt cccagggcgg tggaggggagc aacttcgggg gcaactcctc gtaaatcccg
180
tggaggacac tgacctgtga cccaccctc gagccagaa gtcggttctt ttgggggaac
240
tgagggcgca gagcactcgc ccccctgact tgcaaagttg gcgtctttac ttggcctccg
300
ggattctcgc catggcgtgt ctccaggctg ctgatggcca agacagatgt gccaggtcca
360
gaatgaactt gagaagagtt tctagccatt cctgaatcac cttatactag t
411

```

<210> 6116

<211> 129

<212> PRT

<213> Homo sapiens

<400> 6116

```

Met Ala Thr Asn Ser Ser Gln Val His Ser Gly Pro Gly Thr Ser Val
1           5           10           15
Leu Pro Ile Ser Ser Leu Glu Thr Arg His Ala Gln Asn Pro Gly Gly
      20           25           30
Gln Val Lys Thr Pro Thr Leu Gln Val Arg Gly Ala Ser Ala Leu Ala
      35           40           45
Pro Gln Phe Pro Gln Arg Asn Arg Leu Leu Ala Ser Arg Val Gly Tyr
      50           55           60
Arg Val Ser Val Leu His Gly Ile Tyr Glu Asp Val Pro Pro Lys Leu
      65           70           75           80
Leu Pro Pro Pro Pro Trp Asp Ala Thr Val Arg Pro Ala Asp Glu Phe
      85           90           95
Leu Pro Gln Arg Pro Arg Glu Gly Gly Leu Arg Ala Ala Ala Ala Ala
      100          105          110
Thr Gly Gly Glu Ala Ser Ala Gly Asn Leu Gly Pro Gly Gly Ala Arg

```

Arg 115 120 125

<210> 6117
 <211> 962
 <212> DNA
 <213> Homo sapiens

<400> 6117
 ctctccgctt cccaagcca acgtctccgc cgctggctcc gggcgccgc catggcgagc
 60
 gtggaagacg gagaggaaac ctgcgccctg gcctctcact cgggagctc aggtccaag
 120
 tcgggaggcg acaagatggt ctcctcaag aagtggaaac cgggtggccat gtggagctgg
 180
 gacgtggagt gcgatacgtg cgccatctgc aggggccagg tgatggatgc ctgtcttaga
 240
 tgccaagctg aaaaacaaca agaggactgt gttgtggtct ggggagaatg taatcattcc
 300
 ttccacaact gctgcatgtc cctgtgggtg aaacagaaca atcgctgccc tctctgccag
 360
 caggactggg tgggtccaaag aatcggcaaa tgagagtggg tagaaggctt cttagcgcag
 420
 ttgttcagag ccttggtgga tcttgtaatc cagtgcctca caaaggctag aacactacag
 480
 gggatgaatt cttaaatag gagccgatgg atctgtggtc ctttgggact catcaaaagg
 540
 ttggttttagc attttgtcag ttttatcttc agaaattctc tgcgattaag aagataattt
 600
 attaaagggt gtccttccta cctctgtggt gtgtgtcgcg cacacagctt agaagtgtcta
 660
 taataaaagg aagagctcca aattgaatca cctttataat ttaccattt ctatacaaca
 720
 ggcagtgga gcaatttcag agaacttttt gcatgcttat ggttgatcag ttaaaaaaga
 780
 atgttacagt aacaaataaa gtgcagttta aaaccaact ctactctta atttgtctct
 840
 aatacgtatt ttggcaggg agagggaacg gtccatgaaa tctttatgtg atataaggat
 900
 tttaagtttg ggcagtgaa cagggttaaa aaaatttaac ttttgagcat aaaaaaaaaa
 960
 aa
 962

<210> 6118
 <211> 113
 <212> PRT
 <213> Homo sapiens

<400> 6118
 Met Ala Asp Val Glu Asp Gly Glu Glu Thr Cys Ala Leu Ala Ser His
 1 5 10 15
 Ser Gly Ser Ser Gly Ser Lys Ser Gly Gly Asp Lys Met Phe Ser Leu

100
Cys Asp Val Ser Cys Cys
115

105

110

<210> 6121
<211> 1039
<212> DNA
<213> Homo sapiens

<400> 6121
gacggaacgg cgggtggtggc ccgcggaacc gacggggcac tatgaacgaa gaggagcagt
60
ttgtaaacat tgatttgaat gatgacaaca ttgagcagtgt ttgtaaaactg ggaacagaca
120
aagaaacact ctcccttctgc cacatttgtt ttgagctaaa tattgagggg gtacaaaagt
180
ctgatctctt gcacacacaa tcattaaggg gccataaaga ctgctttgaa aaataccatt
240
taattgcaaa ccagggttgt cctcgatcta agctttcaca aagtacttat gaagaagtta
300
aaaccatttt gagtaagaag ataaactgga ttgtgcagta tgcacaaaat aaggatctgg
360
attcagattc tgaatgttct aaaaagcccc agcatcatct gtttaatttc aggcataaagc
420
cagaagaaaa attactccca cagtttgagt cccaagtacc aaaatattct gcaaaatgga
480
tagatggaag tgcagggtggc atctctaact gtacacaaag aattttggag cagagggaaa
540
atacagactt tggactttct atgttacaag attcaggtgc cactttatgt cgtaacagtg
600
tatttgggcc tcatagtcac aaccaggcac agaaaaaaga agagacaatc tctagtccag
660
aggctaatgt ccagaccag catccacatt acagcagaga ggaataagtt tttgaagagt
720
taactacca agtgcaagaa aaagattctt tggcctcaca gtcctatgtc cgccacgttg
780
ccatgcaaca gcttctgaag aactgttcta agttaccatg tctgcaagta gggcgaaacg
840
gaatgaagtc gcacctacc ataaacaact gacctaaaca gacttacttc gtatgccctg
900
ccctttattg gtctcccaga catgcaaaact ttgaagaagt ttgaagaag ttgtgggtccg
960
tttttttatg gtcattaaat ttgccaaaca taaggcagta tttaacatct ttgtcaaata
1020
aagcagatca ttatactct
1039

<210> 6122
<211> 221
<212> PRT
<213> Homo sapiens

<400> 6122
Met Asn Glu Glu Glu Gln Phe Val Asn Ile Asp Leu Asn Asp Asp Asn

```

      1           5           10           15
Ile Cys Ser Val Cys Lys Leu Gly Thr Asp Lys Glu Thr Leu Ser Phe
      20
Cys His Ile Cys Phe Glu Leu Asn Ile Glu Gly Val Pro Lys Ser Asp
      35
Leu Leu His Thr Lys Ser Leu Arg Gly His Lys Asp Cys Phe Glu Lys
      50
Tyr His Leu Ile Ala Asn Gln Gly Cys Pro Arg Ser Lys Leu Ser Lys
      65
Ser Thr Tyr Glu Glu Val Lys Thr Ile Leu Ser Lys Lys Ile Asn Trp
      85
Ile Val Gln Tyr Ala Gln Asn Lys Asp Leu Asp Ser Asp Ser Glu Cys
      100
Ser Lys Lys Pro Gln His His Leu Phe Asn Phe Arg His Lys Pro Glu
      115
Glu Lys Leu Leu Pro Gln Phe Glu Ser Gln Val Pro Lys Tyr Ser Ala
      130
Lys Trp Ile Asp Gly Ser Ala Gly Gly Ile Ser Asn Cys Thr Gln Arg
      145
Ile Leu Glu Gln Arg Glu Asn Thr Asp Phe Gly Leu Ser Met Leu Gln
      165
Asp Ser Gly Ala Thr Leu Cys Arg Asn Ser Val Leu Trp Pro His Ser
      180
His Asn Gln Ala Gln Lys Lys Glu Glu Thr Ile Ser Ser Pro Glu Ala
      195
Asn Val Gln Thr Gln His Pro His Tyr Ser Arg Glu Glu
      210
      215
      220

```

<210> 6123

<211> 900

<212> DNA

<213> Homo sapiens

<400> 6123

```

ntgcattgcct gtataccaca gctactcggg aggcgtgaggc gggagaatcg cttgaaccca
60
ggaggcgggag gttgcggtga gctgagatcg caccattgca ctccagcctg ggcaacaaga
120
gcgaacaaca aagagaaaaa aaaggaagct gccctctgcc caaaaccccac gtcgaggtcc
180
ccaaacctgg gacccttagg tctttttetca cttagcgtgc ccaaccttct cctggcaggga
240
aacaagcttc caggctctgct tccccgcaaa ggactatata tggcaaatga cttaaagctc
300
ctgagacacc attctccagat tcccatccac tcccccaagg atttcttgct tgtgatgctt
360
gaaaaaaggaa gtttgtctgc catgcgtttc ctacacgcgc tgaacttggg gcatccaggag
420
atgctgggaga aagcgtcccc ggagctgtgg atgcgcgtct ggtcaagggt gagtgtgggg
480
ctctgggaat cctctgggag gaccttgat gactttctga ccttccccgc gcaogttttc
540
agggtcatga tcctgcccc ccccggggga tctactgtcc tccagtcac acccctctcc
600

```


ccgcaccgcc ttctctgtgt cttctcttct tcccagaatg aagacatcac cgagccgcag
 660
 agcatcctcg cggtctgcaga gaaggctggt atgtctgcag aacaagccca gggactcttg
 720
 gaaaagatcg caacgccaaa ggtgaagaac cagctcaagg agaccactga ggcagcctgc
 780
 agatacggag cetttgggct gcccatcacc gtggcccatg tggatggcca aaccacatg
 840
 ttatttggtc ctgaccggat ggagctgctg gcgcacctgc tgggagagaa gtggatgggc
 900

<210> 6124

<211> 300

<212> PRT

<213> Homo sapiens

<400> 6124

Xaa His Ala Cys Ile Pro Gln Leu Leu Gly Arg Leu Arg Arg Glu Asn
 1 5 10 15
 Arg Leu Asn Pro Gly Gly Gly Gly Cys Gly Glu Leu Arg Ser His His
 20 25 30
 Cys Thr Pro Ala Trp Ala Thr Arg Ala Lys Gln Gln Glu Lys Lys Lys
 35 40 45
 Glu Ala Ala Leu Cys Pro Lys Pro Thr Ser Arg Ser Pro Asn Leu Gly
 50 55 60
 Pro Leu Gly Leu Phe Ser Leu Ser Val Pro Asn Leu Leu Ala Gly
 65 70 75 80
 Asn Lys Pro Pro Gly Leu Leu Pro Arg Lys Gly Leu Tyr Met Ala Asn
 85 90 95
 Asp Leu Lys Leu Leu Arg His His Leu Gln Ile Pro Ile His Phe Pro
 100 105 110
 Lys Asp Phe Leu Ser Val Met Leu Glu Lys Gly Ser Leu Ser Ala Met
 115 120 125
 Arg Phe Leu Thr Ala Val Asn Leu Glu His Pro Glu Met Leu Glu Lys
 130 135 140
 Ala Ser Arg Glu Leu Trp Met Arg Val Trp Ser Arg Val Ser Val Gly
 145 150 155 160
 Leu Trp Glu Ser Ser Gly Arg Thr Leu Asp Asp Phe Leu Thr Phe Pro
 165 170 175
 Arg His Val Phe Arg Val Met Ile Leu Pro Pro Pro Gly Gly Ser Thr
 180 185 190
 Val Leu Pro Val Thr Pro Leu Ser Pro His Arg Leu Pro Ala Val Phe
 195 200 205
 Ser Ser Ser Gln Asn Glu Asp Ile Thr Glu Pro Gln Ser Ile Leu Ala
 210 215 220
 Ala Ala Glu Lys Ala Gly Met Ser Ala Glu Gln Ala Gln Gly Leu Leu
 225 230 235 240
 Glu Lys Ile Ala Thr Pro Lys Val Lys Asn Gln Leu Lys Glu Thr Thr
 245 250 255
 Glu Ala Ala Cys Arg Tyr Gly Ala Phe Gly Leu Pro Ile Thr Val Ala
 260 265 270
 His Val Asp Gly Gln Thr His Met Leu Phe Gly Ser Asp Arg Met Glu
 275 280 285
 Leu Leu Ala His Leu Leu Gly Glu Lys Trp Met Gly

290 295 300

<210> 6125
 <211> 468
 <212> DNA
 <213> Homo sapiens

<400> 6125
 nctacagtc ctcaggagaa gtcccgcatg gaggttctt acttggctga caagaaaaag
 60
 atgaacacagg acttagagga tgccagtaac aaggcggagg aggagagggc ccgcctggag
 120
 ggagaattga aggggctgca ggagcaata gcagaaacca aagcccggtt tatcacgcag
 180
 cagcatgac gggccaaga gcagagtac catgcctga tgcctgcgtga gctccagaag
 240
 ctgctgcagg aggagaggac ccagcgccag gacttggagc ttagggttaga agagaccgga
 300
 gaagccttgg caggacgagc atatgcagct gaacagatgg aaggatttga actgcagacc
 360
 aagcagctga cccgtgaggt ggaggagctg aaaagtgaac tgcaggccat tcgagatgag
 420
 aagaatcagc cagacccccg gctgcaagaa cttcaggaag aggcgcgc
 468

<210> 6126
 <211> 156
 <212> PRT
 <213> Homo sapiens

<400> 6126
 Xaa Thr Val Thr Gln Glu Lys Ser Arg Met Glu Ala Ser Tyr Leu Ala
 1 5 10 15
 Asp Lys Lys Lys Met Lys Gln Asp Leu Glu Asp Ala Ser Asn Lys Ala
 20 25 30
 Glu Glu Glu Arg Ala Arg Leu Glu Gly Glu Leu Lys Gly Leu Gln Glu
 35 40 45
 Gln Ile Ala Glu Thr Lys Ala Arg Leu Ile Thr Gln Gln His Asp Arg
 50 55 60
 Ala Gln Glu Gln Ser Asp His Ala Leu Met Leu Arg Glu Leu Gln Lys
 65 70 75 80
 Leu Leu Gln Glu Glu Arg Thr Gln Arg Gln Asp Leu Glu Leu Arg Leu
 85 90 95
 Glu Glu Thr Arg Glu Ala Leu Ala Gly Arg Ala Tyr Ala Ala Glu Gln
 100 105 110
 Met Glu Gly Phe Glu Leu Gln Thr Lys Gln Leu Thr Arg Glu Val Glu
 115 120 125
 Glu Leu Lys Ser Glu Leu Gln Ala Ile Arg Asp Glu Lys Asn Gln Pro
 130 135 140
 Asp Pro Arg Leu Gln Glu Leu Gln Glu Glu Ala Ala
 145 150 155

<210> 6127
 <211> 1900

<212> DNA

<213> Homo sapiens

<400> 6127

gtttctctgga ttacaggcca ggcantggag ataggcagcn ncagcctgac tatcctggta
 60
 gaatgctggg atgggcaect gacacccctc gaggttgcat ccctggctga cagggcatac
 120
 cgggcaagag actccaatat ggtgagggcg gcagcagagc tggccctgag ctgectgcct
 180
 cagcccatg cattgaaccc taatgagatc cagcggggcc tggtcagtg caaggaacag
 240
 gacaacctga tgttgagaaa ggcctgcatg gcagtggag aggcagctaa ggggtggggc
 300
 gtgtaccctg aagtgttgtt tgaggttct caccagtggc tctggctata tgagcaaac
 360
 gcaggtggct catccacagc ccgtgaagg gctacaagc gtagtgccag tgggatcagg
 420
 gcaggtgggg aagctggggc gggatatgct gagggtagag ggggccagg gactgagccg
 480
 gttacagtgg cagcggcagc agtgacagca gcagccacag tggtgccctg catatcggg
 540
 gggctctagt tataccggcg tccaggactg gggcatggcc actcccttg cctgcacccc
 600
 tacactgtc tacagcccca cctgccctgt agccctcagt atctcactca cccagctcac
 660
 cctgcccacc ccatgcctca catgcccgg cctgcctgt tccctgtgcc cagctctgca
 720
 taccacagc gttgtcatcc tgcattccta ggggctcagt acccttatc agtgactcct
 780
 cctcactctg ctgccactgc tgtgtcttcc cccgttccct ccatggcacc catcacagta
 840
 catccctacc acacagagcc agggcttcca ctgccacca gtgtggcctg tgagttgtgg
 900
 ggccagggaa cagtgaagcag tgtccatcca gcattccagt ttccagccat ccaaggtgcc
 960
 tcactgctg cctgaccac acagccagc cctctgggta gggaggttt tccacggccc
 1020
 gaggaggaga cacacagtca gccagtcagt cccacagcc tgcaccacct gcattgtgcc
 1080
 tacctgtctg gaatgtctgc actggagatg ctgggtcgcc gggcacacaa cgatcacccc
 1140
 aacaacttct cccgtctccc cccctacact gatgatgtca aatgggtgct ggggctggca
 1200
 gcaaagctgg gagtgaacta cgtgcaccag ttctgtgtgg gggcagccaa gggggtgctg
 1260
 agcccgtttg tgctgcagga gatcgtcatg gagacgctg agcggctgag tcccgctcat
 1320
 gccacaacc acctgcgtgc ccggccttc caccactgg tgacgcctg ccagcaggca
 1380
 tacatgcagt acatccacca ccgcttgatt cacctgactc ctggggacta cgacgacttt
 1440
 gtgaatgcga tccggagtgc ccgcagcgcc ttctgcctga cggccatggg catgatgcag
 1500

ttcaacgaca tcctacagaa cctcaagcgc agcaaacaga ccaaggagct gtggcagcgg
 1560
 gtctactcgc agatggccac ctctccccc tgagtctttc acccttaggg tcctatacag
 1620
 ggaccacggc ctgtggctat gggggccctt cacacagggg gagtgaaact tggctggaca
 1680
 gatcactctc actcagttcc ctggtagcac agactgacag ctgctcttgg gctatagctt
 1740
 ggggcccaaga tgtctcacac cctagaagcc tagggctggg ggagacagcc ctgtctggga
 1800
 gggggcggtt ggtggcctct ggtatttatt tggcatttat aaatatataa actccttttt
 1860
 tactctagtc gacctgggcc ttctccttct ttccaaattt
 1900

<210> 6128

<211> 530

<212> PRT

<213> Homo sapiens

<400> 6128

Val	Ser	Trp	Ile	Thr	Gly	Gln	Ala	Xaa	Glu	Ile	Gly	Ser	Xaa	Ser	Leu
1			5					10					15		
Thr	Ile	Leu	Val	Glu	Cys	Trp	Asp	Gly	His	Leu	Thr	Pro	Pro	Glu	Val
		20					25					30			
Ala	Ser	Leu	Ala	Asp	Arg	Ala	Ser	Arg	Ala	Arg	Asp	Ser	Asn	Met	Val
		35				40					45				
Arg	Ala	Ala	Ala	Glu	Leu	Ala	Leu	Ser	Cys	Leu	Pro	His	Ala	His	Ala
	50					55				60					
Leu	Asn	Pro	Asn	Glu	Ile	Gln	Arg	Ala	Leu	Val	Gln	Cys	Lys	Glu	Gln
65				70					75					80	
Asp	Asn	Leu	Met	Leu	Glu	Lys	Ala	Cys	Met	Ala	Val	Glu	Glu	Ala	Ala
			85						90				95		
Lys	Gly	Gly	Gly	Val	Tyr	Pro	Glu	Val	Leu	Phe	Glu	Val	Ala	His	Gln
			100					105					110		
Trp	Phe	Trp	Leu	Tyr	Glu	Gln	Thr	Ala	Gly	Gly	Ser	Ser	Thr	Ala	Arg
		115				120						125			
Glu	Gly	Ala	Thr	Ser	Cys	Ser	Ala	Ser	Gly	Ile	Arg	Ala	Gly	Gly	Glu
		130				135					140				
Ala	Gly	Arg	Gly	Met	Pro	Glu	Gly	Arg	Gly	Gly	Pro	Gly	Thr	Glu	Pro
145				150					155					160	
Val	Thr	Val	Ala	Ala	Ala	Ala	Val	Thr	Ala	Ala	Ala	Thr	Val	Val	Pro
			165						170				175		
Val	Ile	Ser	Val	Gly	Ser	Ser	Leu	Tyr	Pro	Gly	Pro	Gly	Leu	Gly	His
			180				185						190		
Gly	His	Ser	Pro	Gly	Leu	His	Pro	Tyr	Thr	Ala	Leu	Gln	Pro	His	Leu
		195					200					205			
Pro	Cys	Ser	Pro	Gln	Tyr	Leu	Thr	His	Pro	Ala	His	Pro	Ala	His	Pro
			210			215					220				
Met	Pro	His	Met	Pro	Arg	Pro	Ala	Val	Phe	Pro	Val	Pro	Ser	Ser	Ala
225				230					235					240	
Tyr	Pro	Gln	Gly	Val	His	Pro	Ala	Phe	Leu	Gly	Ala	Gln	Tyr	Pro	Tyr
			245						250				255		
Ser	Val	Thr	Pro	Pro	Ser	Leu	Ala	Ala	Thr	Ala	Val	Ser	Phe	Pro	Val

```

                260                265                270
Pro Ser Met Ala Pro Ile Thr Val His Pro Tyr His Thr Glu Pro Gly
                275                280                285
Leu Pro Leu Pro Thr Ser Val Ala Cys Glu Leu Trp Gly Gln Gly Thr
                290                295                300
Val Ser Ser Val His Pro Ala Ser Thr Phe Pro Ala Ile Gln Gly Ala
305                310                315                320
Ser Leu Pro Ala Leu Thr Thr Gln Pro Ser Pro Leu Val Ser Gly Gly
                325                330                335
Phe Pro Pro Pro Glu Glu Glu Thr His Ser Gln Pro Val Asn Pro His
340                345                350
Ser Leu His His Leu His Ala Ala Tyr Arg Val Gly Met Leu Ala Leu
355                360                365
Glu Met Leu Gly Arg Arg Ala His Asn Asp His Pro Asn Asn Phe Ser
370                375                380
Arg Ser Pro Pro Tyr Thr Asp Asp Val Lys Trp Leu Leu Gly Leu Ala
385                390                395                400
Ala Lys Leu Gly Val Asn Tyr Val His Gln Phe Cys Val Gly Ala Ala
                405                410                415
Lys Gly Val Leu Ser Pro Phe Val Leu Gln Glu Ile Val Met Glu Thr
420                425                430
Leu Gln Arg Leu Ser Pro Ala His Ala His Asn His Leu Arg Ala Pro
435                440                445
Ala Phe His Gln Leu Val Gln Arg Cys Gln Gln Ala Tyr Met Gln Tyr
450                455                460
Ile His His Arg Leu Ile His Leu Thr Pro Ala Asp Tyr Asp Asp Phe
465                470                475                480
Val Asn Ala Ile Arg Ser Ala Arg Ser Ala Phe Cys Leu Thr Pro Met
485                490                495
Gly Met Met Gln Phe Asn Asp Ile Leu Gln Asn Leu Lys Arg Ser Lys
500                505                510
Gln Thr Lys Glu Leu Trp Gln Arg Val Ser Leu Glu Met Ala Thr Phe
515                520                525
Ser Pro
530

<210> 6129
<211> 2012
<212> DNA
<213> Homo sapiens

<400> 6129
ataggagcag ttccagtacc agccccagta ggatggaatc aaacacgggtg ctggaaacatt
60
cctaccgcga agtgcccccg acccccctcc ccccgctccc gcctcccacg cacggggggg
120
gggggggggg gggctgatcg gcgctaccgg attggaacaac ttggcatggg gcgggggcctc
180
tgggaggcgt ggcctccggc cggtcctct gctgttgcca agggaaactg ccgcgaggag
240
gcggaaggag cagaggacg gcagccggcg tcgaggcggg gcgcgggaac gacgcgggcc
300
atggcgccct cggggccccg gtgtcgccagc tgggtcttgt gtcccgaggt gccatccgcc
360

```

acctctttca ctgcgtgtgt ctgcgtgtgt gtttccgggc ctgcctgtt cctgctgcag
420
cagccctctgg cgccctcggg cctcacgtgt aagtcggagg cccttcgcaa ctggcaagtt
480
tacaggctgg taacctacat ctttgtctac gagaatccca tctccctgct ctgcggcgct
540
atcatcatct ggcgctttgc tggcaatttc gagagaaccg tgggcacogt ccgcacctgc
600
ttcttcaccg tgatcttcgc catcttctcc gctatcatct tcctgtcatt cgaggctgtg
660
tcatactgt caaagctggg ggaagtggag gatgccagag gtttcacccc agtggccttt
720
gccatgctgg gagtccaccac cgtccgttct cggtatgaggc gggccctggg gtttgcatg
780
gttgtgcctt cagtctgtgt tccgtggctc ctgctgggtg cctcgtggct cattccccag
840
acctctttcc tcagtaattgt ctgcggggctg tccatcgggc tggcctatgg cctcacctac
900
tgctattcca tcgacctctc agagcgagtg cgcgtgaagc tcgatcagac ctcccccttc
960
agcctgatga ggaggatata cgtgttcaag tacgtctcag ggtcttcagc cgagaggagg
1020
gcagcccaga gccggaaact gaaccgggtg cctggctcct accccacaca gactgtccac
1080
cttcacctgt ccccaagcca cctctgttcc cagacgcagc acgcccagtg tcagaagctg
1140
gcctcctggc cctcctgcac ccccgggcac atgccacact tgccctcgta ccagcctgcc
1200
tccgacctgt gctatgtgca gaaccacttt ggtccaaacc ccacctcttc cagtgtctac
1260
ccagcttctg cgggcacctc cctgggcatc cagcccccca cgcctgtgaa cagccctggc
1320
acggtgtatt ctggggcctt gggcacacca ggggctgcag gctccaaagg tctctccagg
1380
gtcccatgc cctgagagaa ttcttaggga agtcatctca cttggccttc tgaaggtcct
1440
ccctaagagt ctcccgacaa aagttaacta ttgaacacct ctatgtgcca ggctctgtgt
1500
tgggtacttt gatcaatgcc cctgtttcag tctcatctgt actcacggca gccctgtgga
1560
gtacgggtga ctggcccagc ttacagatgc agaagcgagc acgttctgcc atcagataaa
1620
gtcacgtggc tctttagtaa cacggacaag gctcctcgcc aaggaaactc tggcagaaga
1680
gggcagcagt tggcagtagc tgccgatgtc tgtcccccag tcaccatct cctcctgtgg
1740
ctgtgccgtg ctcgtgggtt cagtgtccgt gtgtccatgt gtctgccctt caggagctcg
1800
cagctgggtg gcttggcggg ccagggcctg tgtagtgtct cctccctgtg gggggcgccc
1860
ccaccccgat tcctctcccc agaagcgggt ggatggggcc ccatgaactg cagcagcatg
1920
ctgaggtgtc catgttgtct gcctttgtat aaagaaacag cctctgacct gcaaaaaaaa
1980

aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aa
2012

<210> 6130
<211> 364
<212> PRT
<213> Homo sapiens

<400> 6130
Met Ala Ala Ser Gly Pro Gly Cys Arg Ser Trp Cys Leu Cys Pro Glu
1 5 10 15
Val Pro Ser Ala Thr Phe Phe Thr Ala Leu Leu Ser Leu Leu Val Ser
20 25 30
Gly Pro Arg Leu Phe Leu Leu Gln Gln Pro Leu Ala Pro Ser Gly Leu
35 40 45
Thr Leu Lys Ser Glu Ala Leu Arg Asn Trp Gln Val Tyr Arg Leu Val
50 55 60
Thr Tyr Ile Phe Val Tyr Glu Asn Pro Ile Ser Leu Leu Cys Gly Ala
65 70 75 80
Ile Ile Ile Trp Arg Phe Ala Gly Asn Phe Glu Arg Thr Val Gly Thr
85 90 95
Val Arg His Cys Phe Phe Thr Val Ile Phe Ala Ile Phe Ser Ala Ile
100 105 110
Ile Phe Leu Ser Phe Glu Ala Val Ser Ser Leu Ser Lys Leu Gly Glu
115 120 125
Val Glu Asp Ala Arg Gly Phe Thr Pro Val Ala Phe Ala Met Leu Gly
130 135 140
Val Thr Thr Val Arg Ser Arg Met Arg Arg Ala Leu Val Phe Gly Met
145 150 155 160
Val Val Pro Ser Val Leu Val Pro Trp Leu Leu Gly Ala Ser Trp
165 170 175
Leu Ile Pro Gln Thr Ser Phe Leu Ser Asn Val Cys Gly Leu Ser Ile
180 185 190
Gly Leu Ala Tyr Gly Leu Thr Tyr Cys Tyr Ser Ile Asp Leu Ser Glu
195 200 205
Arg Val Ala Leu Lys Leu Asp Gln Thr Phe Pro Phe Ser Leu Met Arg
210 215 220
Arg Ile Ser Val Phe Lys Tyr Val Ser Gly Ser Ser Ala Glu Arg Arg
225 230 235 240
Ala Ala Gln Ser Arg Lys Leu Asn Pro Val Pro Gly Ser Tyr Pro Thr
245 250 255
Gln Ser Cys His Pro His Leu Ser Pro Ser His Pro Val Ser Gln Thr
260 265 270
Gln His Ala Ser Gly Gln Lys Leu Ala Ser Trp Pro Ser Cys Thr Pro
275 280 285
Gly His Met Pro Thr Leu Pro Pro Tyr Gln Pro Ala Ser Gly Leu Cys
290 295 300
Tyr Val Gln Asn His Phe Gly Pro Asn Pro Thr Ser Ser Ser Val Tyr
305 310 315 320
Pro Ala Ser Ala Gly Thr Ser Leu Gly Ile Gln Pro Pro Thr Pro Val
325 330 335
Asn Ser Pro Gly Thr Val Tyr Ser Gly Ala Leu Gly Thr Pro Gly Ala
340 345 350
Ala Gly Ser Lys Glu Ser Ser Arg Val Pro Met Pro

355

360

<210> 6131

<211> 3526

<212> DNA

<213> Homo sapiens

<400> 6131

nngggagcgg cgagtaagat ggaagatgag gaggtcgctg agagctggga agaggcggca
60
gacagcgggg aaatagacag acggttggaa aaaaaactga agatcacaca aaaagagagc
120
aggaaatcca aatctctctcc caaagtgtccc attgtgatctc aggacgatag ccttccccgcg
180
gggccccctc cacagatccg catctctcaag agggcccacca gcaacggtgt ggtcagcagc
240
cccaactcca ccagcaggcc cacccttcca gtcaagtccc tagcacagcg agaggccgag
300
tacgccgagg ccggaagcg gatcctgggc agcggccagcc ccgaggaggga gcaggagaaa
360
cccatctctg acaggtcttc ctctgatctt ctctccctca ggccaaccag gatctcccaa
420
cccgaagaca gcaggcagcc caataatgtg atcagacagc etttgggtcc tgatgggtca
480
cacggcttca aacagcgcag ataatgcag gcaagaaaag atgccgcgct tgctgccgtc
540
accgctctct gggctcgtcc ccaagggttg cactgccgtg gcagacagct ggacttgagc
600
agagggaacg acctgactta ctgtcactgt gatccccctt gctccgcccc ctgtgacctt
660
gaaccccatg cactgtgacc tcccccttc tcccccttc cactgtgatt ggcacatcga
720
caagggtgtg cccaagtcaa tggaaaggga aagggtgggg gttaggggaa ggttgggggg
780
accagcaag gactcagaga gtcagacagt gccacttggc cacttggggg aaagccagtg
840
ccagcaataa cagtttatca tgctcattaa tttgggattt caaaacacaa atgaaaaactc
900
acacccaccc accccaagt gcatgtctcc atcacttaaa aagtaagttc cattttgaaaa
960
tatcttttct ttttttttct tctctatttt tgtttgttta tacaatatc tgatttgcga
1020
gaaaaagtgc atgggagggg ttttagtggt ttaataaatt ttaattaag aaagggtagt
1080
ttggtagtct acttaaaaaa gtttctggga aattcactag aacattaac caataggatt
1140
ttggtgagct tagcttctgt attcctactg ccgcccagaa aaggggcagg gctctgcagc
1200
cgccaggaca gacgagcacc ccatgcctat acctccctcc ccgagctaag tcccagggca
1260
ctcgggctct gcttgagagc tgggctagct ctgttaggctc ggagagcctg gggagggtgc
1320
caacccaccc tctagtattt tgggagatag ggaaagtga cgaacttccc ctctccatcc
1380

ccctcagggt ggttccctac cagccaggct tactacttct agaagaaagc agagtgccag
1440
ggagtggatg tgcattccctg ggcttagaag tgacggagag aagacttgtt tagtatTTTT
1500
ccatcagcac aaggaaaacc aggagagagt ctgcctccag gactctgagc cttctgcctc
1560
gtatgttcag aaggtggata ggtcttccca ctccagcatg gcttgaactc ttagggggtct
1620
gcagtgctcc atctccattg gtggccccag ctcaagtaact atacctggta catttctctg
1680
gtgcaatcag taccttgaag gcagaacatt ctgaataaag ttggaaaaag aacagctttg
1740
ctttgcaaaag attgatgaca gactggttcc tcagaggcct aggetaccgc tcaccctttt
1800
ttccagagcg agggcctgga atgaaggcag tttatctctt gtccctggag cctgggggtt
1860
gctttggctc cttgaggtgg aagagactaa gagggcagct gccagagca gctgtgtgta
1920
ccttgctcct ctacggcttc ctgattccct ccatgtcact gcgcttctc cctcagccag
1980
ccagacagcc tccctgctcc tgaccagcag atacgtttcg gagtgggtgg tgtgtgtttt
2040
gtgatgaggg cagcacgtgg tggccaaggt gacaagctga gtctcacagg ctactccct
2100
cgttggttcc ctgtgggaat ggtaggccag gccagtaag ccatgcccc aacgctctc
2160
tcctccggag gaagggccag ctgccagctg agtcagcagc tagtccatag cacagcctta
2220
taactgtaaa gccaggcatt gcccatgagc agagctggaa ccagagcttc agtcagtaag
2280
agggaggatt accttcagga gaaggcaagg aagaaaactg gctgctatct ttatagtctc
2340
actgccctaa ccaagtgtcc acattctaaa tgtgtagtgt ccatccctta tgtaatagtg
2400
gtttcccgcc caaagtgaga ctttctttt aattggagaa gggatatagag gtatgccagg
2460
tggaacgccc agaagtgtg attgccagc cattgggacc acctgttctt gccccactac
2520
cctctagtgg gaggccaaag taaaggctgg ctgggtgggtg tctgtggatt gaggatgtgg
2580
cagggactgg tcctccccc tcctctctgc caaagatggg ctttccccg tctgtgcctg
2640
tcaccaccca ccagcagtcg tgccctgggc ttcccaaatg gagaggtagc aggcaacgtt
2700
tttaaaaaga aagaaaacag gaaactgtat tgtgtcgggg gaggcggggg ggagatgagg
2760
aaacggtttg gattttgtgt gtgggagggt attttttggg ggtagttgtc tgtaactttc
2820
ctaagtgtt ttttctctt tcttttttaa agtaagtgc agctttggc ttggaaaaac
2880
ccagggggat ggggggcagg aacctgaggc tgctgccctt ttatctgcct tcaeggtact
2940
gtccctctcc ccagctcct cctgacccc atgggccagg cctcagacct tccagetaac
3000

cgcttcccat gagccactac tctgatgtca gcctataacc aaaggagctg ggggggtccag
 3060
 gcctgtgtgac caacctttct cagccactc aatcagggtg ctccccacct gcaggcagga
 3120
 ggcaaacacc tatctgtac catcagcccc ttccagagcc catctgcccc gccagccct
 3180
 gccctgcccc gccataccct gctctgcccc atctgggggt gccctgctca gggatgggt
 3240
 ggagggctg taccagcct ccttggttaag cagagactca agaaacctct ggggtcctgt
 3300
 ttctggtcg tgtgatccca ggggtgcaca tgggccccct gggtgtctga acagaagggc
 3360
 atgggagggga ggggtgcacc cctgcagtct tactctgctg gtgtagcggg cagctgcccc
 3420
 ctcccccccc accctgcacc gcgggctcct gagtcggcag attaacgatt ttataaattg
 3480
 tattttaaat acatgtttta aactgttaaa aaaaaaaaaa aaaaaa
 3526

<210> 6132

<211> 167

<212> PRT

<213> Homo sapiens

<400> 6132

Xaa Gly Ala Ala Ser Lys Met Glu Asp Glu Glu Val Ala Glu Ser Trp
 1 5 10 15
 Glu Glu Ala Ala Asp Ser Gly Glu Ile Asp Arg Arg Leu Glu Lys Lys
 20 25 30
 Leu Lys Ile Thr Gln Lys Glu Ser Lys Ser Lys Ser Pro Pro Lys
 35 40 45
 Val Pro Ile Val Ile Gln Asp Asp Ser Leu Pro Ala Gly Pro Pro Pro
 50 55 60
 Gln Ile Arg Ile Leu Lys Arg Pro Thr Ser Asn Gly Val Val Ser Ser
 65 70 75 80
 Pro Asn Ser Thr Ser Arg Pro Thr Leu Pro Val Lys Ser Leu Ala Gln
 85 90 95
 Arg Glu Ala Glu Tyr Ala Glu Ala Arg Lys Arg Ile Leu Gly Ser Ala
 100 105 110
 Ser Pro Glu Glu Glu Gln Glu Lys Pro Ile Leu Asp Arg Ser Ser Ser
 115 120 125
 Asp Leu Leu Pro Phe Arg Pro Thr Arg Ile Ser Gln Pro Glu Asp Ser
 130 135 140
 Arg Gln Pro Asn Asn Val Ile Arg Gln Pro Leu Gly Pro Asp Gly Ser
 145 150 155 160
 His Gly Phe Lys Gln Arg Arg
 165

<210> 6133

<211> 4156

<212> DNA

<213> Homo sapiens

<400> 6133

nngcgccgcg cgcgccggg cccagccgga gccgcccgc tgcacctgc ctttgccctgc
60
gcggtctaga atcaccatcc gcggcgcggg agacgagccg gccgtccgg gcggggggac
120
ccgcccccca tggccaccaa ggctcggggt atgtatgatt ttgctgctga acctggaaat
180
aatgaactga cgggttaatga aggagaaatc atcacatca caaatccgga ttaggttgga
240
ggatggctgg aaggaagaaa catcaaagga gaacgagggc tggttccac agactacgtt
300
gaaattttac ccagtgatgg aaaagatcaa ttttcttgtg gaaattcagt ggctgacca
360
gccttccttg attctctctc agccagcaca gctcaggcca gtctgtcggc tgcagcaac
420
aatcaccagg ttggcagtgg caatgacccc tggtcagcct ggagtgcctc caaatctggg
480
aactgggaaa gctcagaagg ctgggggggc cagccagagg gggtggagc ccaaagaaac
540
acaaacactc ccaacaactg ggacactgcc ttgcggccacc cccaggccta ccaaggacca
600
gcaactgggt atgatgatga ctgggatgaa gactgggatg ggcccaaatc ctcttctac
660
tttaaggatt cagagtcagc tgatgcaggc ggcgtcagc gagaaacag tcgtgctagt
720
tcctcatcca tgaataatcc ccttaacaaa ttctcctgat ttgcgaaacc tggcagcgaa
780
cagtatattgt tggccaaaca actagcaaaa cccaaagaga aaattcccat catgtgtgga
840
gattatggcc caatgtgggt ttatctacc tctacttttg actgtgtggt agcagatccc
900
agaaaaggct ccaaaatgta tggctctaaag agctacatcg aatatcagct aacacctact
960
aacactaatc gatctgtaaa ccacaggat aagcactttg actggttata tgagcgtctc
1020
ctggttaagt ttgggtcagc cattccaatc ccttctcttc cagacaaaca agtcacaggc
1080
cgctttgaag aggaatttat caaaatgcgc atggagagac ttcaggcctg gatgaccagg
1140
atgtgtcgcc atccagtaat ctcaaaaagt gaagtttccc agcagttcct aaatttccga
1200
gatgagaagg aatggaaaac tggaaaaggg aaggccgaga gagatgagct ggcgggagtc
1260
atgatatttt ccaccatgga accagaggca cctgacttgg acttagtaga aatagagcag
1320
aagtgcgagg ctgtggggaa gtccaccaag gccatggatg acggcgtaaa ggagctgctg
1380
acggtggggc aggagcactg gaagcgctgc acgggcccc tacccaagga atatcagaag
1440
ataggaaagg ccttgacagag ttggccaca gtgttcagtt ccagtggcta tcaaggtgaa
1500
acagatctca atgatgcaat aacagaagca ggaaagactt atgaagaat tgccagttctc
1560
gtggcagaac agccaaagaa agatctccat ttctctgatg aatgtaatca cgagtataaa
1620

ggttttcttg gctgcttccc tgacatcatt ggcaactcaca agggagcaat agaaaaagtg
1680
aaagaaagtg acaaactagt tgcaacaagt aaaatcaccc tacaagacaa acagaacatg
1740
gtgaagagag tcagcatcat gtcttacgag ttgcaagctg agatgaatca ctttcacagt
1800
aacgggatct atgattacaa cagtgtcatc cgcctgtacc tggagcagca agtgcaattt
1860
tacgaaacga ttgcagaaaa gctgaggoag gccctcagcc gctttccagt gatgtaggac
1920
agaaaggggc ttgaagagaa tgccgcgtgc tttctcctga cttggggcaa tgcaattcaa
1980
aacttttttt cccctattat tcagaaaaaa aaggaaacaa aacaaaaaag aaagagtgc
2040
aaaaaactgc atttatttta ttagccaccc taaatgcgtc agttatttag ggatggctct
2100
ttgttcattt cgcacatcat tatttaaacc agtggaaatt gtctctattt ttggaaagta
2160
cttaaaagt accagaattt tcaatggaaa atgaggggtt tctccccact gatattttac
2220
atagagtcac aatttatatg tcttataaat tataagtcct atataattta taagtctccc
2280
acaactctcc agttcttacc cagtgtcaga taattaatta ctaattactt tcttaaaac
2340
atgaactatg ccagaataaa aaatatctat gtttgtatat ttttataact cctttcagtc
2400
ctctggggct cctgtcattg agggagctgc ttacgccttt cactgccaca gttacagctc
2460
aagtgcctac acttcaagag ggaggacgct gggggccctt ggggctgcta gtgccatcgt
2520
ggtgtgtggc aggtggggcca tcccatgtcc ctccaggggg accccacagc ttggcagatg
2580
agcagatacc cctggccacc catgtcctca cgcacatttc tgatgtgctg ctcttatgtg
2640
aggaccagtg cttctctctt ttgcaacttc ttccataatc tgggtaaggc atgttttatg
2700
ccatgaagaa tacattagaa gaattgaggg actttgtaga gaattttgtg gctttgggcc
2760
aacgggtgag tggctgtgag gaggcctgtg ttcgggaggg cctgggagaa ggagggcacc
2820
cagcaccctg cgtctctctg ccctttctta ttctttggct cctcatccac cgtgatgaga
2880
agcgtgctg tggccacggc acaactgctt gcttgggttg cgggttcatt gccagttggt
2940
gtcatcagca aagagaaaaa gcacaggta gctccccatt agatggaaaa gtgtagggac
3000
tgagaagggc tgcagcctca gcaggttaca gagtccccg cgctctgagg ttggagagaa
3060
agaacagacc agcgccttc ctgactacat ccgaaacttc acacaggggt tttctgagca
3120
ccagcacttc cagcgttca cttaacggca taaagcaaaa caggaccttg gcacaccgtc
3180
agctgaact caacactggc agccaccgtc tcaccctcgc ggaggagcgc tcccctctcc
3240

cacagggtgcc ttaccgcgtt cctcccgcgt gctttcattt ttctgacctt ataattacgg
 3300
 gaaatggaaa gtctgggcca gcatcaataa aatgacacca aaaataagta gatgaaatca
 3360
 aatgaatatg agaacatctt gttcttcaat atcaocgggtt ttgtttaatg ttccataagt
 3420
 aattctcccc acttgatttt tcttctataa aatcccatag aacaatgttt atgctatagc
 3480
 catttaatat atgtacaaat tgtaagaat atgtataaat gttttacacg aatgtaagag
 3540
 catgtagaag ccaacatata aataaattgt ttaaaaaaac tgtacagtaa atcttcaaag
 3600
 cactttttca aaacactttt tggactttgt gtgtgatttt tggtgtgtgt gtttaagtact
 3660
 ttttattcca gctgctgaaa atgggtccagg taatgaattc ttccccaat cctatttctt
 3720
 ctgacatgaa ttcacatatt cagttccgta ggtcagtggt gcggtccggg aagcgtatca
 3780
 taaccacctg ggagttgccca agaagcagac agtctccag tgtctgactc tcggatattt
 3840
 ggatttgact ggtgtgagcg aaagtgaata agggatgggg gaaatggaga tggcacgggc
 3900
 tcctcagagc gtggtagccg actgtgagga aaagcagagg gaatgtgaaa gaaaataaga
 3960
 gaatccacgg gatttgatgc ctggaagatt ctctctcaag tggcaacatg gcatatatat
 4020
 ctttctcgg ggagtcacat gcaccatttg gttcttagat acgttgatgt ttgtattttt
 4080
 aatgatttgt atcaacctgt aggtaccaca gaagagctgt agtcataca tcacataact
 4140
 ttacaaaata tagtgg
 4156

<210> 6134

<211> 595

<212> PRT

<213> Homo sapiens

<400> 6134

Met	Ala	Thr	Lys	Ala	Arg	Val	Met	Tyr	Asp	Phe	Ala	Ala	Glu	Pro	Gly
1				5					10				15		
Asn	Asn	Glu	Leu	Thr	Val	Asn	Glu	Gly	Glu	Ile	Ile	Thr	Ile	Thr	Asn
			20					25					30		
Pro	Asp	Val	Gly	Gly	Gly	Trp	Leu	Glu	Gly	Arg	Asn	Ile	Lys	Gly	Glu
			35				40					45			
Arg	Gly	Leu	Val	Pro	Thr	Asp	Tyr	Val	Glu	Ile	Leu	Pro	Ser	Asp	Gly
			50			55					60				
Lys	Asp	Gln	Phe	Ser	Cys	Gly	Asn	Ser	Val	Ala	Asp	Gln	Ala	Phe	Leu
65					70				75					80	
Asp	Ser	Leu	Ser	Ala	Ser	Thr	Ala	Gln	Ala	Ser	Ser	Ser	Ala	Ala	Ser
				85					90				95		
Asn	Asn	His	Gln	Val	Gly	Ser	Gly	Asn	Asp	Pro	Trp	Ser	Ala	Trp	Ser
			100				105					110			
Ala	Ser	Lys	Ser	Gly	Asn	Trp	Glu	Ser	Ser	Glu	Gly	Trp	Gly	Ala	Gln

115	120	125
Pro Glu Gly Ala Gly	Gln Arg Asn Thr Asn Thr	Pro Asn Asn Trp
130	135	140
Asp Thr Ala Phe Gly His	Pro Gln Ala Tyr Gln Gly	Pro Ala Thr Gly
145	150	155
Asp Asp Asp Asp Trp Asp	Glu Asp Trp Asp Gly	Pro Lys Ser Ser Ser
165	170	175
Tyr Phe Lys Asp Ser Glu	Ser Ala Asp Ala Gly Gly	Ala Gln Arg Gly
180	185	190
Asn Ser Arg Ala Ser Ser	Ser Ser Met Lys Ile	Pro Leu Asn Lys Phe
195	200	205
Pro Gly Phe Ala Lys Pro	Gly Thr Glu Gln Tyr Leu	Leu Ala Lys Gln
210	215	220
Leu Ala Lys Pro Lys Glu	Lys Ile Pro Ile Ile Val	Gly Asp Tyr Gly
225	230	235
Pro Met Trp Val Tyr Pro	Thr Ser Thr Phe Asp Cys	Val Val Ala Asp
245	250	255
Pro Arg Lys Gly Ser Lys	Met Tyr Gly Leu Lys	Ser Tyr Ile Glu Tyr
260	265	270
Gln Leu Thr Pro Thr Asn	Thr Asn Arg Ser Val	Asn His Arg Tyr Lys
275	280	285
His Phe Asp Trp Leu Tyr	Glu Arg Leu Leu Val Lys	Phe Gly Ser Ala
290	295	300
Ile Pro Ile Pro Ser Leu	Pro Asp Lys Gln Val Thr	Gly Arg Phe Glu
305	310	315
Glu Glu Phe Ile Lys Met	Arg Met Glu Arg Leu Gln	Ala Trp Met Thr
325	330	335
Arg Met Cys Arg His Pro	Val Ile Ser Glu Ser Glu	Val Phe Gln Gln
340	345	350
Phe Leu Asn Phe Arg Asp	Glu Lys Glu Trp Lys Thr	Gly Lys Arg Lys
355	360	365
Ala Glu Arg Asp Glu Leu	Ala Gly Val Met Ile Phe	Ser Thr Met Glu
370	375	380
Pro Glu Ala Pro Asp Leu	Asp Leu Val Glu Ile Glu	Gln Lys Cys Glu
385	390	395
Ala Val Gly Lys Phe Thr	Lys Ala Met Asp Asp Gly	Val Lys Glu Leu
405	410	415
Leu Thr Val Gly Gln Glu	His Trp Lys Arg Cys Thr	Gly Pro Leu Pro
420	425	430
Lys Glu Tyr Gln Lys Ile	Gly Lys Ala Leu Gln Ser	Leu Ala Thr Val
435	440	445
Phe Ser Ser Ser Gly Tyr	Gln Gly Glu Thr Asp Leu	Asn Asp Ala Ile
450	455	460
Thr Glu Ala Gly Lys Thr	Tyr Glu Glu Ile Ala Ser	Leu Val Ala Glu
465	470	475
Gln Pro Lys Lys Asp Leu	His Phe Leu Met Glu Cys	Asn His Glu Tyr
485	490	495
Lys Gly Phe Leu Gly Cys	Phe Pro Asp Ile Ile Gly	Thr His Lys Gly
500	505	510
Ala Ile Glu Lys Val Lys	Glu Ser Asp Lys Leu Val	Ala Thr Ser Lys
515	520	525
Ile Thr Leu Gln Asp Lys	Gln Asn Met Val Lys Arg	Val Ser Ile Met
530	535	540
Ser Tyr Ala Leu Gln Ala	Glu Met Asn His Phe His	Ser Asn Arg Ile

```

545                550                555                560
Tyr Asp Tyr Asn Ser Val Ile Arg Leu Tyr Leu Glu Gln Gln Val Gln
                565                570                575
Phe Tyr Glu Thr Ile Ala Glu Lys Leu Arg Gln Ala Leu Ser Arg Phe
                580                585                590
Pro Val Met
                595

```

```

<210> 6135
<211> 526
<212> DNA
<213> Homo sapiens

```

```

<400> 6135
tcgacgtccc tccttctgag ccatcagcaa ctaggcgact acaggaaact tactccaat
60
tgctactaga aaagaccttg cttgaagagc catctcatca acatgttacg caggaaacac
120
aggccaaacc aggggtatcag ccatctggag aatctgacaa agaaaacaaa gtacaggaac
180
gtcccccagg tgcgtcttcc agtagtgaca tgtctctctc agaacctcca cagcctcttg
240
caagaaaaga cttgatggaa tctacatgga tgcagcctga aagattgagc ccacaagttc
300
accattctca accacagcct tttgctggaa cagctggaag tttactctcc catctcttga
360
gttttagaca tgtaggaatt ttgcataagg attttgaatc tattttacca accaggaaga
420
atcataatat ggcttcaagg ccattaactt ttacacctca accatatgtg acctcaccag
480
ctgcttatac agatgccttg gtaaaaccta gtgccagcca atataa
526

```

```

<210> 6136
<211> 105
<212> PRT
<213> Homo sapiens

```

```

<400> 6136
Met Ser Leu Ser Glu Pro Pro Gln Pro Leu Ala Arg Lys Asp Leu Met
1                5                10                15
Glu Ser Thr Trp Met Gln Pro Glu Arg Leu Ser Pro Gln Val His His
20                25                30
Ser Gln Pro Gln Pro Phe Ala Gly Thr Ala Gly Ser Leu Leu Ser His
35                40                45
Leu Leu Ser Leu Glu His Val Gly Ile Leu His Lys Asp Phe Glu Ser
50                55                60
Ile Leu Pro Thr Arg Lys Asn His Asn Met Ala Ser Arg Pro Leu Thr
65                70                75                80
Phe Thr Pro Gln Pro Tyr Val Thr Ser Pro Ala Ala Tyr Thr Asp Ala
85                90                95
Leu Val Lys Pro Ser Ala Ser Gln Tyr
100                105

```

<210> 6137
<211> 2073
<212> DNA
<213> Homo sapiens

<400> 6137
ngcgcccgcc aagcgatccc tgctccgcgc gacactgcgt gcccgcgcac gcagagagggc
60
ggtagcgac tttacggcgg cagcgtaagt gcgtgacgct cgtcagtgcc ttcagttcac
120
acgtggcgcc agcggaggca ggttgctgtg tttgtgcttc cttctacagc caatatgaaa
180
agccctaagt taaagaaagc aagtaaacgc atgacctgcc ataagcggta taaaatccaa
240
aaaaagggtc gagaacatca tcgaaaatta agaaaggagg ctaaaaagca gggtcacaag
300
aagcctagga aagacccagg agttccaaac agtgctccct ttaaggaggc tcttcttagg
360
gaagctgagc taaggaaaca gaggcttgaa gaactaaac agcagcagaa acttgacagg
420
cagaaggaa tagaaaagaa aagaaaactt gaaactaatc ctgatattaa gnccatcaaa
480
tgtggaacn ntatggaaaa ggagtttggg ctttgcaaaa ctgagaaaca agccaagtcg
540
ggcaaacaga attcaagaa gctgtactgc caagaactta aaaagggtg tgagcctcc
600
gatgtgtgcc tagagggtgt ggatgccaga gatcctcttg gttgcagatg tcctcaggta
660
gaagaggcca ttgtccagag tggacagaaa aagctggtag ttatattaaa taaatcagat
720
ctggtaccaa aggagaattt ggagagctgg ctaaattatt tgaagaaga attgccaaaca
780
gtggtgttca gagcctcaac aaaaccaag gataaaggga agataaccaa gcgtgtgaag
840
gcaagaaga atgctgctcc attcagaagt gaagtctgct ttgggaaga gggcctttgg
900
aaactttctg gaggttttca ggaaacttgc agcaaagcca ttcgggttgg agtaattgggt
960
ttcccaaatg tggggaaaag cagcattatc aatagcttaa aacaagaaca gatgtgtaat
1020
gttggltgat coattgggct tacaaaggag atgcaagttg tccccttgga caaacagatc
1080
acaatcatag atagtcgag cttcatcgta tctccactta attcctcttc tgcgcttgct
1140
ctcggaagtc cagcaagtat tgaagtagta aaaccgatgg aggtgccag tgccatcctt
1200
tcccaggctg atgctcgaca ggtagtactg aaatatactg tcccaggcta caggaattct
1260
ctggaatttt ttactgtgct tgctcagaga agaggtagtc accaaaaagg tggaaatccca
1320
aatgttgaag gtgctgcca actgctgtgg tctgagtggg caggtgcctc attagcttac
1380
tattgccatc cccctacatc ttggactcct cctccatatt ttaatgagag tatttgggta
1440

gacatgaaaa gcggcttcaa tctggaagaa ctggaaaaga acaatgcaca gagcataaga
 1500
 gccatcaagg gccctcattt ggccaatagc atccttttcc agtcttccgg tctgacaaat
 1560
 ggaataatag aagaaaagga catacatgaa gaattgccaa aacggaaaga aaggaagcag
 1620
 gaggagaggg aggatgacaa agacagtgc caggaaactg ttgatgaaga agttgatgaa
 1680
 aacagctcag gcattgttgc tgcagaagag acagggggagg cactgtctga ggagactaca
 1740
 gcaggtgaac agtctacaag gtctttttatc ttggataaaa tcattgaaga ggatgatgct
 1800
 tatgacttca gtacagatta tgtgtaacag aacaatggct ttttatgatt ttttttttta
 1860
 acattttaag cagactgcta aactgtttctc tgtataagtt atgggtatgca tgagctgtgt
 1920
 aaattttgtg aatatgtatt atattaaaac caggcaactt ggaatcccta aattctgtaa
 1980
 aagacaatt catctcattg tgagtgaag tagttatctg gaataaaaaa agaagatacc
 2040
 tattgaaaaa aaaaaaaaaa aaaaaaaaaa aaa
 2073

<210> 6138

<211> 550

<212> PRT

<213> Homo sapiens

<400> 6138

Met	Lys	Arg	Pro	Lys	Leu	Lys	Lys	Ala	Ser	Lys	Arg	Met	Thr	Cys	His
1			5					10					15		
Lys	Arg	Tyr	Lys	Ile	Gln	Lys	Lys	Val	Arg	Glu	His	His	Arg	Lys	Leu
			20					25					30		
Arg	Lys	Glu	Ala	Lys	Lys	Gln	Gly	His	Lys	Lys	Pro	Arg	Lys	Asp	Pro
			35				40					45			
Gly	Val	Pro	Asn	Ser	Ala	Pro	Phe	Lys	Glu	Ala	Leu	Leu	Arg	Glu	Ala
			50			55					60				
Glu	Leu	Arg	Lys	Gln	Arg	Leu	Glu	Glu	Leu	Lys	Gln	Gln	Lys	Leu	
				70						75			80		
Asp	Arg	Gln	Lys	Glu	Leu	Glu	Lys	Lys	Arg	Lys	Leu	Glu	Thr	Asn	Pro
			85						90				95		
Asp	Ile	Lys	Xaa	Ile	Lys	Cys	Gly	Thr	Xaa	Met	Glu	Lys	Glu	Phe	Gly
			100				105						110		
Leu	Cys	Lys	Thr	Glu	Asn	Lys	Ala	Lys	Ser	Gly	Lys	Gln	Asn	Ser	Lys
			115				120					125			
Lys	Leu	Tyr	Cys	Gln	Glu	Leu	Lys	Lys	Val	Ile	Glu	Ala	Ser	Asp	Val
			130			135					140				
Val	Leu	Glu	Val	Leu	Asp	Ala	Arg	Asp	Pro	Leu	Gly	Cys	Arg	Cys	Pro
				150					155					160	
Gln	Val	Glu	Glu	Ala	Ile	Val	Gln	Ser	Gly	Gln	Lys	Lys	Leu	Val	Leu
				165					170				175		
Ile	Leu	Asn	Lys	Ser	Asp	Leu	Val	Pro	Lys	Glu	Asn	Leu	Glu	Ser	Trp
			180					185				190			
Leu	Asn	Tyr	Leu	Lys	Lys	Glu	Leu	Pro	Thr	Val	Val	Phe	Arg	Ala	Ser

```

      195              200              205
Thr Lys Pro Lys Asp Lys Gly Lys Ile Thr Lys Arg Val Lys Ala Lys
  210              215              220
Lys Asn Ala Ala Pro Phe Arg Ser Glu Val Cys Phe Gly Lys Glu Gly
  225              230              235              240
Leu Trp Lys Leu Leu Gly Gly Phe Gln Glu Thr Cys Ser Lys Ala Ile
      245              250              255
Arg Val Gly Val Ile Gly Phe Pro Asn Val Gly Lys Ser Ile Ile
      260              265              270
Asn Ser Leu Lys Gln Glu Gln Met Cys Asn Val Gly Val Ser Met Gly
  275              280              285
Leu Thr Arg Ser Met Gln Val Val Pro Leu Asp Lys Gln Ile Thr Ile
  290              295              300
Ile Asp Ser Pro Ser Phe Ile Val Ser Pro Leu Asn Ser Ser Ser Ala
  305              310              315              320
Leu Ala Leu Arg Ser Pro Ala Ser Ile Glu Val Val Lys Pro Met Glu
      325              330              335
Ala Ala Ser Ala Ile Leu Ser Gln Ala Asp Ala Arg Gln Val Val Leu
      340              345              350
Lys Tyr Thr Val Pro Gly Tyr Arg Asn Ser Leu Glu Phe Phe Thr Val
  355              360              365
Leu Ala Gln Arg Arg Gly Met His Gln Lys Gly Gly Ile Pro Asn Val
  370              375              380
Glu Gly Ala Ala Lys Leu Leu Trp Ser Glu Trp Thr Gly Ala Ser Leu
  385              390              395              400
Ala Tyr Tyr Cys His Pro Pro Thr Ser Trp Thr Pro Pro Pro Tyr Phe
      405              410              415
Asn Glu Ser Ile Val Val Asp Met Lys Ser Gly Phe Asn Leu Glu Glu
  420              425              430
Leu Glu Lys Asn Asn Ala Gln Ser Ile Arg Ala Ile Lys Gly Pro His
  435              440              445
Leu Ala Asn Ser Ile Leu Phe Gln Ser Ser Gly Leu Thr Asn Gly Ile
  450              455              460
Ile Glu Glu Lys Asp Ile His Glu Glu Leu Pro Lys Arg Lys Glu Arg
  465              470              475              480
Lys Gln Glu Glu Arg Glu Asp Asp Lys Asp Ser Asp Gln Glu Thr Val
      485              490              495
Asp Glu Glu Val Asp Glu Asn Ser Ser Gly Met Phe Ala Ala Glu Glu
  500              505              510
Thr Gly Glu Ala Leu Ser Glu Glu Thr Thr Ala Gly Glu Gln Ser Thr
  515              520              525
Arg Ser Phe Ile Leu Asp Lys Ile Ile Glu Glu Asp Asp Ala Tyr Asp
  530              535              540
Phe Ser Thr Asp Tyr Val
  545              550

```

<210> 6139

<211> 2249

<212> DNA

<213> Homo sapiens

<400> 6139

nncggccgcga ggggcggcg ctgtcgcagc ccgtccgcct cgtcatgggt acgggcgcga
 60

gcctcacccg cagaaccac ctcacactga gccgcgccgg ctcagactcc acaggtcgtc
120
acagacgatg atggccaggc cccggaggct aaggacggca gctcctttag cggcagagt
180
ttccgagtga ccttcttgat gctggctggt tctctcaccg ttccctgctc tggagccatg
240
atgctgctgg aatctctat agatccacag cctctcagct tcaaagaacc ccgctcttg
300
cttggtgttc tgcattccaa tacgaagctg cgacaggcag aaaggctggt tgaatatcaa
360
cttggtggac cggagtcctat agcacatatt ggggatgtga tgtttactgg gacagcagat
420
ggccgggtcg taaaacttga aaatggtgaa atagagacca ttgcccggt tnggttcggg
480
cccnnttgca aaacccgaga tgatgagcct gtgtgtggga gaccctggg tatccgtgca
540
gggcccgaat ggcactctct tgtggccgat gcatacaagg gactatttga agtaaatccc
600
tggaaacgtg aagtgaact gctgctgtcc tccgagacac ccattgaggg gaagaacatg
660
tccttttgta atgatcttac agtcaactcag gatgggagga agatttattt caccgattct
720
agcagcaaat ggcaaagacg agactacctg cttctggtga tggagggcac agatgacggg
780
cgctgtctgg agtatgatac tgtgaccagg gaagtaaaag ttttatttga ccagctgcgg
840
ttccgaatg gagtccagct gtctcctgca gaagactttg tcctggtggc agaaaacaacc
900
atggccagga tacgaagagt ctacgtttct gccctgatga agggcggggc tgatctgttt
960
gtggagaaca tgcctggatt tccagacaac atccggccca gcagctctgg ggggtactgg
1020
gtgggcatgt cgaccatccg ccctaaccct gggttttcca tgctggattt cttatctgag
1080
agaccctgga ttaaaaggat gatttttaag ggaagctgcg ctggttgtga tctgctcttt
1140
agtcaagaga cggtgatgaa gtttgtgccg cggtacagcc tcgtcctaga actcagcgac
1200
agcgtgtcct tccggagaag cctgcatgat cccgatgggc tggtagccac ctacatcagc
1260
gaggtgcacg aacacgatg gcacctgtac ctgggctctt tcaggtcccc ctctctctgc
1320
agactcagcc tccaggctgt ttagecctcc cagatagctg cccctgccac gcaggccagg
1380
agtcttcaca ctcaggcacc aggcctggtc caggaggagc tgtggacaca gctcgtgttc
1440
aagtgtccac atgcacctgt tagtccctga gaggtggtgg gaatggctgc ttcattcctc
1500
gaggatgccc gggcccccac tgggcttgtc tttctgttta gagggagatg taacatatct
1560
gccatgagga acataaattc atgtaaagcc attttctctt aaacaaaaca aaactttcta
1620
agtacagtca ttctctagga tttgggaagc tccttgcaat tggaaacagg ctcaggtggg
1680

tggagcagta aggcactacc cagagagctt gctgctgctg cctgtctctg cggcctcaaa
 1740
 gttcttctttt actatatata acgtgcgggc atacctttct tcyttgtggt gggggtggaa
 1800
 gagcagaggg agcatggccc aggggtgttg aggccagcgg tgagagccgt gttagccaag
 1860
 acatggaaact gtgttctcaa ggggttatgtg gggcggtgggc tctccatagt gtgtatgaaa
 1920
 agcttggtga ctctagecggc tcagagagga ctttgcctggg tttctttctg tgaatatctc
 1980
 cgtgctgacc atgctggaat tggatgattc tgcaattcgg gacctactgc aggggtccgt
 2040
 ttagtaacgt cttgtctgtg atctttgttc ttgacctcta gacccaaga tgtgaacagt
 2100
 gcacgtgtta atgtcatctt tgctcatgtg ttataagccc caagttgctg tatattttca
 2160
 caagtatgtc tacacactgg tcatgatttt gataataaat aacgataaat cgacttctgc
 2220
 tgattaacct ttaaaaaaaaa aaaaaaaaaa
 2249

<210> 6140

<211> 381

<212> PRT

<213> Homo sapiens

<400> 6140

Met Leu Ala Val Ser Leu Thr Val Pro Leu Leu Gly Ala Met Met Leu
 1 5 10 15
 Leu Glu Ser Pro Ile Asp Pro Gln Pro Leu Ser Phe Lys Glu Pro Pro
 20 25 30
 Leu Leu Leu Gly Val Leu His Pro Asn Thr Lys Leu Arg Gln Ala Glu
 35 40 45
 Arg Leu Phe Glu Asn Gln Leu Val Gly Pro Glu Ser Ile Ala His Ile
 50 55 60
 Gly Asp Val Met Phe Thr Gly Thr Ala Asp Gly Arg Val Val Lys Leu
 65 70 75 80
 Glu Asn Gly Glu Ile Glu Thr Ile Ala Arg Phe Xaa Phe Gly Pro Xaa
 85 90 95
 Cys Lys Thr Arg Asp Asp Glu Pro Val Cys Gly Arg Pro Leu Gly Ile
 100 105 110
 Arg Ala Gly Pro Asn Gly Thr Leu Phe Val Ala Asp Ala Tyr Lys Gly
 115 120 125
 Leu Phe Glu Val Asn Pro Trp Lys Arg Glu Val Lys Leu Leu Leu Ser
 130 135 140
 Ser Glu Thr Pro Ile Glu Gly Lys Asn Met Ser Phe Val Asn Asp Leu
 145 150 155 160
 Thr Val Thr Gln Asp Gly Arg Lys Ile Tyr Phe Thr Asp Ser Ser Ser
 165 170 175
 Lys Trp Gln Arg Arg Asp Tyr Leu Leu Leu Val Met Glu Gly Thr Asp
 180 185 190
 Asp Gly Arg Leu Leu Glu Tyr Asp Thr Val Thr Arg Glu Val Lys Val
 195 200 205
 Leu Leu Asp Gln Leu Arg Phe Pro Asn Gly Val Gln Leu Ser Pro Ala

210	215	220
Glu Asp Phe Val Leu Val Ala Glu Thr Thr Met Ala Arg Ile Arg Arg		
225	230	235
Val Tyr Val Ser Gly Leu Met Lys Gly Gly Ala Asp Leu Phe Val Glu		240
	245	250
Asn Met Pro Gly Phe Pro Asp Asn Ile Arg Pro Ser Ser Ser Gly Gly		255
	260	265
Tyr Trp Val Gly Met Ser Thr Ile Arg Pro Asn Pro Gly Phe Ser Met		270
	275	280
Leu Asp Phe Leu Ser Glu Arg Pro Trp Ile Lys Arg Met Ile Phe Lys		285
	290	295
Gly Ser Cys Ala Gly Cys Asp Leu Leu Phe Ser Gln Glu Thr Val Met		300
	305	310
Lys Phe Val Pro Arg Tyr Ser Leu Val Leu Glu Leu Ser Asp Ser Gly		315
	325	330
Ala Phe Arg Arg Ser Leu His Asp Pro Asp Gly Leu Val Ala Thr Tyr		335
	340	345
Ile Ser Glu Val His Glu His Asp Gly His Leu Tyr Leu Gly Ser Phe		350
	355	360
Arg Ser Pro Phe Leu Cys Arg Leu Ser Leu Gln Ala Val		365
	370	375
		380

<210> 6141

<211> 5651

<212> DNA

<213> Homo sapiens

<400> 6141

cttcgccacc tctctagcct gggcaactgg gggcgccccc gacgaccatg agagataagg
 60
 actgagggcc aggaagggga agcgagcccc ccgagaggtg gcggggactg ctcacgcaa
 120
 gggccacagc ggccgcgctc cgccctcgct ccgcccctcc acgcctcgcg ggatccgcgg
 180
 gggcagcccc gccgggcggg gatgccgggg ctggggcgga gggcgcagtg gctgtgctgg
 240
 tgggtggggc tgctgtgcag ctgctgcggg cccccgcgc tgcggccgcc cttgcccgct
 300
 gccgcggcgc ccgccgccgg ggggcagctg ctgggggacg gcgggagccc gccgcgcagc
 360
 gagcagccgc cgccgctgcc gcagtcctcc tcgggcttcc tgtacggcg gctcaagagc
 420
 caggagaagc gggagatgca gaaggagatc ttgtcggtgc tggggctccc gcaccggccc
 480
 cgggccctgc acggcctcca acagccgcag cccccgcgc tccggcagca ggaggagcag
 540
 cagcagcagc agcagctgcc tcgcggagag cccctcccc ggcgactgaa gtccgcgcc
 600
 ctcttcattg tggatctgta caacgccctg tccgccgaca acgacgagga cggggcgctg
 660
 gagggggaga ggcagcagtc ctggccccac gaagcagcca gctcgctcca gcgtcggcag
 720
 ccgcccccg gcgcgcgca cccgctcaac cgcaagagcc ttctggcccc cggatctggc
 780

agcggcggcg cgteccact gaccagcgcg caggacagcg ccttcctcaa cgacgcggac
840
atgggtcatga gctttgtgaa cctgggtggag tacgacaagg agttctcccc tcgtcagcga
900
caccacaaag agttcaagtt caacttatcc cagattcctg aggggtggggg ggtgacggct
960
gcgaattcc gcattctacaa ggaactgtgtt atggggagtt ttaaaaacca aacttttctt
1020
atcagcattt atcaagtctt acaggagcat cagcacagag actctgacct gtttttgttg
1080
gacacccgtg tagtatgggc ctcaagaaga ggctggctgg aatttgacat caccggccact
1140
agcaatctgt gggttgtgac tccacagcat aacatggggc ttcagctgag cgtggtgaca
1200
agggatggag tccacgtcca ccccgagcc gcaggcctgg tgggcagaga cgcccttac
1260
gataagcagc ccttcatggt ggccttcttc aaagtgagtg aggtccactg gcgcaccacc
1320
aggtcagcct ccagccggcg ccgacaacag agtcgtaac gctctacca gtcccaggac
1380
gtggcgcggg tctccagtgc ttcagattac aacagcagtg aattgaaaac agcctgcagg
1440
aagcatgagc tgtatgtgag ttccaagac ctgggatggc aggaactgga cattgcaccc
1500
aagggctatg ctgccaatta ctgtgatgga gaatgctcct tcccaactca cgcacacatg
1560
aatgcaacca accacgcgat tgtgcagacc ttggttcacc ttatgaacct cgagtatgtc
1620
cccaaacctg gctgtgcgcc aactaagcta aatgccatct cggttcttta ctccaatgac
1680
aattccaaaa tcaccttgaa aaaatacaga aatatgggtg taagagcttg tggatattgc
1740
taacttgaaa ccagatgctg gggacacaca ttctgccttg gattccttgg tcatagctgc
1800
cttaaaaaac atacagaagc acagttggag gtgggacgat gagactttga aactatctca
1860
tgctgatgcc ttactgcccg agaaaaatct taacggacct tgctaataat ttgctcaact
1920
ggtaaagtaac atgagtagtt gttggtctgt actaagctga gtttggatgt ctgtagcata
1980
aggtctggta actgcagaaa cataaccgtg aagctcttcc taccctcctc ccccaaaaac
2040
ccaccaaact tagtttttagc ttagatcaa gctatttggg gtgtttgtta gtaaataggg
2100
aaaataatct caaaggagtt aatgtatto ttggctaaag gatcagctgg ttcagactg
2160
tctatcaaa gtagatttta cagagaacag aatcggggga agtgggggga acgcctctgt
2220
tcagttcatt cccagaagtc cacaggacgc acagcccagg ccacagccag ggtccacgg
2280
ggcgcccttg tctcagtcac tgctgttgta tgttcgtgct ggagttttgt tgggtgtgaa
2340
atacacttat ttcagccaaa acataccatt tctacacctc aatcctccat ttgctgtact
2400

ctttgctagt accaaaagta gactgattac actgaggtag ggctacaagg ggtgtgtaac
2460
cgtgtaacac gtgaaggcaa tgcacacctc tttcttacca gaacggttct ttgaccagca
2520
cattaacttc tggactgccg gctctagtag cttttcagta aagtgggtct ctgctttttt
2580
actatacagc ataccacgcc acaggggttag aaccaacgaa gaaaataaaa tgaggggtgcc
2640
cagcttataa gaatggtggt agggggatga gcatgctgtt tatgaacgga aatcatgatt
2700
tccttcttag aaagttaggc tcagattaaa ttttagaata ttttctaatt gtctttttca
2760
caatcatgta ctgggaaggc aatttcatac taaactgatt aaataatata tttataatct
2820
acaactgttt gcacttacag ctttttttgt aaatataaac tataatttat tgtctatatt
2880
atatctgttt tgctgtaaca ttgaaggaaa gaccagactt ttaaaaaaaa agagtattatt
2940
tagaaagtat catagtgtaa acaaacaaat tgtaccactt tgattttctt ggaatacaag
3000
actcgtgatg caaagctgaa gttgtgtgta caagactctt gacagtgttg cttctctagg
3060
agggtggggt tttttaaaaa aagaattatc tgtgaacctt acgtgattaa taaagatttc
3120
ctttaaggca gaggctgggt gagatgctgc tgttatcttc tgcttcagac agacagtata
3180
agtgggtctt tttctaagat tctaccacc agttactctt ggccaagtat ccacatcccc
3240
ttgcgtatgg gaggtgggtg aagagtgttg gatgcaaagt ggttattatg ggaagttagct
3300
cgtgggtaaa aggacaaaaca cctatctatc tttagagctta agcctgtatg tgcctatttc
3360
caagggggat agaggtggtt aatcacaaag acagcatgag tttagggaca ctggcatcaa
3420
cagctgccac agcctgtcac accagggcca gagcagccca ctgacatctg tctttgggtc
3480
tgagatcaaa tgcattccat tcttcataca ttagaaggct gacctccttg aagcagacca
3540
agtatagcaa gccctcaaaa ggactactga gaaacagaat cagaaactct agaactctag
3600
ttagggccct tcagcagggc tgacagacct ccttggtatc ccaggccttg gaaagcctgt
3660
ctgggtctgt caccctaggc gacaaaata actggaatct ttcaatgagt taatgagata
3720
ctgagaatga gccctgtgga attttccatg cctacccttt ctaagggaaga catccaacag
3780
ttcatgtggg ctctggcttc gtgttaacat gaggaactaa agacatgttt caccctgtga
3840
gaaacagaag gatccccctga acagtaactg atttgacaag tatcgacaca taaagttatg
3900
gcatcagcat tctcttactc aggcacggtc agaagtaacg ctgctttcat caccggtaac
3960
ctctcactc gagagaagta ttcacagcaa cagaagctcc agcagcggtc gtgaaggtag
4020

ctccagagg tgtgggtttt tgcatttcaa tctgctccat gctacggacc aacacagtat
4080
tgagtcact gtgaccttaa gatcagagga acgtcaatac tgcacaagg ccacctttcc
4140
agaactcgtg ggcaggtaaa ctatgctttg gatgtgcttt ctttcaccaa aatcactcaa
4200
ctcaggagcc acaaatagtc cagcaatttc atttccctca acgtattttt agtctcaaa
4260
gaaacatgt aaatttcac aagagaaggt caaaggggat atatcgccac tgaaaaagt
4320
tacacagtga ccatgagtta cacatttact tagagaaact taacttaata aagaatctgt
4380
agagtgtgtt ggcttggaaa acacacacac aaagaagata cctcacgctt agtatgttct
4440
gctttctgaa cagccaccac tgggaaccca gtggcctctg tgggactgaa ctctaaacg
4500
cagggtgcgg gagctgggca ggagaggtga cctccaactg tgttctctaa gtctgtctt
4560
cgcttggctc aggacaaaagc ggtgtaacga gtcaaggctt ctgcctccac tgtgtctact
4620
gactttcttc cctcctcgga aaagcaataa cgtggggtag cctcgtaccg aatactgtct
4680
gcagatattc cgttcagcag tgcagtctac ttcggcgatc ttgaccccg ccagaccagg
4740
gaattccttt tttagagagt cctcccaagt aggagccaga gtcttacaat gaccacacca
4800
tgagagcataa aacttgatga aggttatctc ttctgcaatg gtgtcatcga agttatcttc
4860
agtgagtgcc aacacagtgc ccttgtcagc ctccggctca gctgcagca ccggggcctc
4920
tgaggggctg acggtctccg tgcctccagt ctctgtgcgc tgcagctgcg actccacgta
4980
ctccctcagt gactccaaat cccgctttcc ctgttactga tccacctttt tcccatctcg
5040
gaaccagaga agagtgggat agccacgaac ctggtttccg gagcagagtt catagtgtctg
5100
tgtacaatca accttgccaa tcttgacagt ttccggaatg tcaaggccca gagccagctg
5160
ctccaggtt ggagccaggg ctttgacagt accacaccac ggagcgaaga acttgataaa
5220
gtggtgcctt tgtgcaacgt gcagctcaaa gttgcttgct gagagctcat acagcccttg
5280
cttgagctcg ggggcactgg gcggttccac ttccggctct ggtgtcactg gctcctcgtt
5340
cagtgctctc agcatccagt ttccagagt ctggaagtcc caggagacct ggtacttcc
5400
agcttcttgg cctggcttga aaagctttaa ggtgggggat cctcgacccc cctggggcga
5460
gcacagctcg gagtgggccc tgcagtcac tttagccaca tagacttttg catcttccat
5520
gctgtgttat ttgtctccca ggtcatccca agtcggctgc agcgcctggc agtgccaca
5580
ccaggggcgg aagaacatga cgaagtgcgc ggcgctctg atcccgctgc tgaacatgct
5640

ggccgtgtac a
5651

<210> 6142
<211> 513
<212> PRT
<213> Homo sapiens

<400> 6142
Met Pro Gly Leu Gly Arg Arg Ala Gln Trp Leu Cys Trp Trp Trp Gly
1 5 10 15
Leu Leu Cys Ser Cys Cys Gly Pro Pro Leu Arg Pro Pro Leu Pro
20 25 30
Ala Ala Ala Ala Ala Ala Ala Gly Gly Gln Leu Leu Gly Asp Gly Gly
35 40 45
Ser Pro Gly Arg Thr Glu Gln Pro Pro Ser Pro Gln Ser Ser Ser
50 55 60
Gly Phe Leu Tyr Arg Arg Leu Lys Thr Gln Glu Lys Arg Glu Met Gln
65 70 75 80
Lys Glu Ile Leu Ser Val Leu Gly Leu Pro His Arg Pro Arg Pro Leu
85 90 95
His Gly Leu Gln Gln Pro Gln Pro Pro Ala Leu Arg Gln Gln Glu Glu
100 105 110
Gln Gln Gln Gln Gln Gln Leu Pro Arg Gly Glu Pro Pro Pro Gly Arg
115 120 125
Leu Lys Ser Ala Pro Leu Phe Met Leu Asp Leu Tyr Asn Ala Leu Ser
130 135 140
Ala Asp Asn Asp Glu Asp Gly Ala Ser Glu Gly Glu Arg Gln Gln Ser
145 150 155 160
Trp Pro His Glu Ala Ala Ser Ser Ser Gln Arg Arg Gln Pro Pro Pro
165 170 175
Gly Ala Ala His Pro Leu Asn Arg Lys Ser Leu Leu Ala Pro Gly Ser
180 185 190
Gly Ser Gly Gly Ala Ser Pro Leu Thr Ser Ala Gln Asp Ser Ala Phe
195 200 205
Leu Asn Asp Ala Asp Met Val Met Ser Phe Val Asn Leu Val Glu Tyr
210 215 220
Asp Lys Glu Phe Ser Pro Arg Gln Arg His His Lys Glu Phe Lys Phe
225 230 235 240
Asn Leu Ser Gln Ile Pro Glu Gly Gly Val Val Thr Ala Ala Glu Phe
245 250 255
Arg Ile Tyr Lys Asp Cys Val Met Gly Ser Phe Lys Asn Gln Thr Phe
260 265 270
Leu Ile Ser Ile Tyr Gln Val Leu Gln Glu His Gln His Arg Asp Ser
275 280 285
Asp Leu Phe Leu Leu Asp Thr Arg Val Val Trp Ala Ser Glu Glu Gly
290 295 300
Trp Leu Glu Phe Asp Ile Thr Ala Thr Ser Asn Leu Trp Val Val Thr
305 310 315 320
Pro Gln His Asn Met Gly Leu Gln Leu Ser Val Val Thr Arg Asp Gly
325 330 335
Val His Val His Pro Arg Ala Ala Gly Leu Val Gly Arg Asp Gly Pro
340 345 350
Tyr Asp Lys Gln Pro Phe Met Val Ala Phe Phe Lys Val Ser Glu Val

```

          355          360          365
His Val Arg Thr Thr Arg Ser Ala Ser Ser Arg Arg Arg Gln Gln Ser
          370          375          380
Arg Asn Arg Ser Thr Gln Ser Gln Asp Val Ala Arg Val Ser Ser Ala
385          390          395          400
Ser Asp Tyr Asn Ser Ser Glu Leu Lys Thr Ala Cys Arg Lys His Glu
          405          410          415
Leu Tyr Val Ser Phe Gln Asp Leu Gly Trp Gln Asp Trp Ile Ile Ala
          420          425          430
Pro Lys Gly Tyr Ala Ala Asn Tyr Cys Asp Gly Glu Cys Ser Phe Pro
          435          440          445
Leu Asn Ala His Met Asn Ala Thr Asn His Ala Ile Val Gln Thr Leu
          450          455          460
Val His Leu Met Asn Pro Glu Tyr Val Pro Lys Pro Cys Cys Ala Pro
465          470          475          480
Thr Lys Leu Asn Ala Ile Ser Val Leu Tyr Phe Asn Asp Asn Ser Lys
          485          490          495
Ile Thr Leu Lys Lys Tyr Arg Asn Met Val Val Arg Ala Cys Gly Tyr
          500          505          510
Cys

```

<210> 6143

<211> 1137

<212> DNA

<213> Homo sapiens

<400> 6143

```

tttttttttt tttttgagct gcagagcact gagctttatt tacaaacttc cacagaatcc
60
ctcaccctcc accccagggt cctccctctc tggaaactcag gcagcagaca agcttgggtc
120
caccacacctg cccaacctag gacagctggg cctgagctgg ggggagggg gattccatct
180
ctggggtgctg cctgccagag gggagaggct ggaggcgccg ggaatgctgt tctcccccag
240
gagtcagtc ctagggcttc tgccgtggga cgtggggccg agggacctgg ggcactgacc
300
aggtcggggt cgggggcagc atctgcattg gtgaggccgg gtgaaaaggg ctgctgggtgc
360
cggacagctt ctgtgtctgg gcctagcgga gacagaggac cagagggtcca ggttcctggg
420
ggctgagctt ttctcagact tcggaggaaa aatgtcccag ccagcagggc agtgcggggg
480
cagggccaggt gtgtcagagg cgtcaaagct ctttcgggtg gatgtgttac cggtcggggg
540
gctccaggat cgacagcggg atgctcaccg tgcgcagggg ggctgaactg cgctgctgcg
600
ccagggtccc agggccctgc ttgtctcgcg atgtcctgca caggcgccag ggggtaccgg
660
gatccacagg caccgggaac aggcgcgggt tgacacggta acagtacacg cattcatggg
720
cttcctccac gcgcgtgcca ctgctctcac gcaggcctgg caactggggg tccaggatggc
780

```

tgcagatata ctctctccttg ttggtttccc gaaactcctg cagcttgag aagaaggcct
 840
 caggctgggt ggtgatggaa gagctgggtg ccagagaccc tgcaatccag tcatagccca
 900
 ggtagggcct gaggcgccag ctctctcag gaactgcaga ctctcagag aaggtcaccc
 960
 tgggcttgga cagcttgctc tgttgagcca ggatggacct cggggctgtg gcctcctggg
 1020
 gtccctggat acccagcctc cctgagggtc ctgggtccct caggcttgag gtgccccagc
 1080
 aggggtctga gtgggtctc ggtcggccca gggactcctg gtgctggcat ttggcag
 1137

<210> 6144

<211> 141

<212> PRT

<213> Homo sapiens

<400> 6144

Phe	Phe	Phe	Phe	Glu	Leu	Gln	Ser	Thr	Glu	Leu	Tyr	Leu	Gln	Thr
1			5					10				15		
Ser	Thr	Glu	Ser	Leu	Thr	Leu	His	Pro	Arg	Val	Leu	Pro	Leu	Trp
		20					25				30			
Ser	Gly	Ser	Arg	Gln	Ala	Trp	Val	His	Pro	Pro	Ala	Gln	Pro	Arg
	35					40					45			
Ala	Gly	Pro	Glu	Leu	Gly	Gly	Gln	Gly	Ile	Pro	Ser	Pro	Gly	Cys
	50					55					60			
Cys	Gln	Arg	Gly	Glu	Ala	Gly	Gly	Gly	Asn	Ala	Val	Leu	Pro	Gln
65				70				75			80			
Glu	Ser	Val	Leu	Arg	Ala	Ser	Ala	Val	Gly	Arg	Gly	Ala	Glu	Gly
			85					90			95			
Gly	Ala	Leu	Thr	Arg	Ser	Gly	Ser	Gly	Ala	Ala	Ser	Ala	Leu	Val
		100					105				110			
Pro	Gly	Glu	Lys	Gly	Cys	Trp	Cys	Arg	Thr	Ala	Ser	Gly	Ala	Gly
		115					120				125			
Ser	Gly	Asp	Arg	Gly	Pro	Glu	Val	Gln	Val	Pro	Gly	Gly		
	130					135					140			

<210> 6145

<211> 766

<212> DNA

<213> Homo sapiens

<400> 6145

nacaagggtc cagcctcctc tctctgggtc cagcttgctg cctctgggtc acctgttcct
 60
 agagcaatgt cttccagca gcagcagcg caggcagcag tccccacccc agagggccag
 120
 cagcagcaag tgaagcagcc ttgtcagcca cccctgttta aatgtcaaga gacatgtgca
 180
 cccaaaacca aggtccatg tgctccccag gtcaagaagc aatgcccacc gaaagacacc
 240
 atcattccag cccagcagaa gtgtccctca gcccagcaag cctccaagag caaacagaag
 300

taaggatgga ctggatatta ccatcatcca ccatcctggc taccagatgg aaccttctct
 360
 tcttctctct ccttctccct ccagctcttg agcctaccct cctctcacat ctctcctggc
 420
 ccaagatgta aggaagcatt gtaaggattt cttoecatcg tacccttccc cacacatacc
 480
 accttggtt cttctatct ccaccccgat gctctcccg gtgggtgtga gagagacctc
 540
 attctctgca ggctccagcg tggccacagc taaggcccat ccatttccca aagtggaggaa
 600
 agtgtctggg cttctcttgg ggttccaccc tgacaagtag ggtcacagag gctgggtgcac
 660
 agttctctgc tcattctctt ccatgatgcc cctctgctcg ggcttctctc ctgttttccc
 720
 caataaatat gtgcctcatg taataaatgt gtctgcttcc tgggct
 766

<210> 6146

<211> 100

<212> PRT

<213> Homo sapiens

<400> 6146

Xaa Lys Gly Ser Ala Ser Ser Pro Gly Val Gln Leu Val Ala Ser Gly
 1 5 10 15
 Ser Pro Val Pro Arg Ala Met Ser Ser Gln Gln Gln Gln Arg Gln Ala
 20 25 30
 Ala Val Pro Thr Pro Glu Ala Gln Gln Gln Gln Val Lys Gln Pro Cys
 35 40 45
 Gln Pro Pro Val Lys Cys Gln Glu Thr Cys Ala Pro Lys Thr Lys
 50 55 60
 Asp Pro Cys Ala Pro Gln Val Lys Lys Gln Cys Pro Pro Lys Asp Thr
 65 70 75 80
 Ile Ile Pro Ala Gln Gln Lys Cys Pro Ser Ala Gln Gln Ala Ser Lys
 85 90 95
 Ser Lys Gln Lys
 100

<210> 6147

<211> 1852

<212> DNA

<213> Homo sapiens

<400> 6147

ntgctaactc aaggagctac tgtacttaaa aacatgcaaa atatgttgta tttgtggcat
 60
 agttcatatt tacactatca taaaattatg gccgagaagt taaatattct aaatgtgtca
 120
 acatagtctt ctgtaaaact gacttacttt ccaaatatat ttgaaataa aacaataata
 180
 aaatgttttc tgttttttagg aatggtggaa agcagcagac ataattggag tgggttggat
 240
 aagcaaaagt atattcaaaa tttaaatgaa gagagaatct tagctttaca gctttgtggg
 300

tgataaaga aaggaacgga ttagacgtg ggccatttt tgaactccct tgcacaagaa
360
ggggaatggg aaagagctgc tgctgtggca ttgttcaact tggatattcg ccgagcaatc
420
caaatcctga atgaaggggc atcttctgaa aaaggagatc tgaatctcaa tgtggtgaca
480
atggctttat cgggtttatc ggatgagaag aactcccttt ggagagaaa gtgtagcaca
540
ctgcgattac agctaataa cccgtatttg tgtgtcatgt ttgcatttct gacaagttaa
600
acaggatctt acgatggagt tttgtatgaa aacaaagtg cagtacgtga cagagtggca
660
tttgcttgta aattcccttag tgatactcag ttaaatagat acatcgaaaa gttgaccaat
720
gaaatgaaag aggctggaaa ttggaagga attttgctta caggccttac taaagatgga
780
gtggacttaa tggagagtta tgtgtataga actggagatg ttcaaacagc aagtactagt
840
atgttacagg gttcaccttt agatgttctt aaagatgaaa gggttcagta ctggattgag
900
aattatagaa atttattaga tgccctggagg ttttgccata aacgagctga atttgatatt
960
cacaggagta agttggatcc cagttccaag cctttagcac aagtttttgt gagtgcatt
1020
ttctgtggca agtcaatctc ctacagctgt tcagctgtgc etcatcaggg cagaggtttt
1080
agtcagtatg gtgtgagtgg ctacccaacg aaatctaaa gtcacaagtg tcttgctgt
1140
cgaaaaccac ttctcagatg tgcgttttgt ctcatataa tgggaacacc agtttctagc
1200
tgtctcggag gaaccaaacc agatgaaaa gtggacttga gcaaggacaa aaaattagcc
1260
caatttaaca actgggtttac atggtgtcat aattgcaggc acggtggaca tgcaggacat
1320
atgcttagtt ggttcaggga ccatgcagag tgcctgtgt ctgcatgcac gtgtaaatgt
1380
atgcagttgg atacaacggg gaatctggta cctgcagaga ctgtccagcc ataaaatgtt
1440
accaccttaa gagaaccctt caagtgtgga gctttctagt aggtgtcctt catagctcag
1500
aaacatacct cagaacaagc cattcatgac ttacctgtaa tgggaaaata aatcattcta
1560
tcagatcagc agttttgatg ttgagtgtat ttgatatgc ttacagaga caaatgctgc
1620
caaaaataac atcgagtat agacatgagt tctgttcagc aggttgaaaa gtctgattta
1680
gaaaaacttt ctaagttttg gttgaaatta tgaacactct agaagcagaa tttctggaag
1740
agccaagaac agactttgag cctatatctt caaagctgaa actggatata tttcaataaa
1800
atatgtgcac ttttaaaata aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aa
1852

<210> 6148

<211> 410
 <212> PRT
 <213> Homo sapiens

<400> 6148

```

Met Val Glu Ser Ser Arg His Asn Trp Ser Gly Leu Asp Lys Gln Ser
 1          5          10          15
Asp Ile Gln Asn Leu Asn Glu Glu Arg Ile Leu Ala Leu Gln Leu Cys
 20          25          30
Gly Trp Ile Lys Lys Gly Thr Asp Val Asp Val Gly Pro Phe Leu Asn
 35          40          45
Ser Leu Val Gln Glu Gly Glu Trp Glu Arg Ala Ala Val Ala Leu
 50          55          60
Phe Asn Leu Asp Ile Arg Arg Ala Ile Gln Ile Leu Asn Glu Gly Ala
 65          70          75          80
Ser Ser Glu Lys Gly Asp Leu Asn Leu Asn Val Val Ala Met Ala Leu
 85          90          95
Ser Gly Tyr Thr Asp Glu Lys Asn Ser Leu Trp Arg Glu Met Cys Ser
100          105          110
Thr Leu Arg Leu Gln Leu Asn Asn Pro Tyr Leu Cys Val Met Phe Ala
115          120          125
Phe Leu Thr Ser Glu Thr Gly Ser Tyr Asp Gly Val Leu Tyr Glu Asn
130          135          140
Lys Val Ala Val Arg Asp Arg Val Ala Phe Ala Cys Lys Phe Leu Ser
145          150          155          160
Asp Thr Gln Leu Asn Arg Tyr Ile Glu Lys Leu Thr Asn Glu Met Lys
165          170          175          180
Glu Ala Gly Asn Leu Glu Gly Ile Leu Leu Thr Gly Leu Thr Lys Asp
180          185          190          195
Gly Val Asp Leu Met Glu Ser Tyr Val Asp Arg Thr Gly Asp Val Gln
195          200          205
Thr Ala Ser Tyr Cys Met Leu Gln Gly Ser Pro Leu Asp Val Leu Lys
210          215          220
Asp Glu Arg Val Gln Tyr Trp Ile Glu Asn Tyr Arg Asn Leu Leu Asp
225          230          235          240
Ala Trp Arg Phe Trp His Lys Arg Ala Glu Phe Asp Ile His Arg Ser
245          250          255
Lys Leu Asp Pro Ser Ser Lys Pro Leu Ala Gln Val Phe Val Ser Cys
260          265          270          275
Asn Phe Cys Gly Lys Ser Ile Ser Tyr Ser Cys Ser Ala Val Pro His
275          280          285          290
Gln Gly Arg Gly Phe Ser Gln Tyr Gly Val Ser Gly Ser Pro Thr Lys
290          295          300
Ser Lys Val Thr Ser Cys Pro Gly Cys Arg Lys Pro Leu Pro Arg Cys
305          310          315          320
Ala Leu Cys Leu Ile Asn Met Gly Thr Pro Val Ser Ser Cys Pro Gly
325          330          335
Gly Thr Lys Ser Asp Glu Lys Val Asp Leu Ser Lys Asp Lys Lys Leu
340          345          350
Ala Gln Phe Asn Asn Trp Phe Thr Trp Cys His Asn Cys Arg His Gly
355          360          365
Gly His Ala Gly His Met Leu Ser Trp Phe Arg Asp His Ala Glu Cys
370          375          380
Pro Val Ser Ala Cys Thr Cys Lys Cys Met Gln Leu Asp Thr Thr Gly

```

```

385                               390                               395                               400
Asn Leu Val Pro Ala Glu Thr Val Gln Pro
                               405                               410

<210> 6149
<211> 1949
<212> DNA
<213> Homo sapiens

<400> 6149
nggcgcgggg ctgcatgggc agcgcgcgcg ccccgcgct gagcgcgc ggagcgcgc
60
agccctcgga gcaagaatat atacagccct gctctgggac acacctccat tggatttaaa
120
agacagtcct cgtcagcact gactttcagc tatggaatcg cagacggttg atgatgaagc
180
gccgcgcgtg taaatgaaga tcgggtgagg agcaggacga tgcccaaggg tgggtgcctt
240
aaagcaccac agcaggaaga gcttcccttc agcagcgaca tgggtggagaa gcagactggg
300
aaaaaggata aagataaagt ttctctaacc aagaccccaa aactggagcg tggogattggc
360
gggaaggagg tgagggagcg agccagcaag cggaagctgc ccttcaccgc gggcgccaat
420
ggggagcaga aggactcgga cacagagaag cagggccctg agcggaagag gattaagaag
480
gagcctgtca cccggaaggc cgggctgctg tttggcatgg ggctgtctgg aatccgagcc
540
ggctaccccc tctccgagcg ccagcaggtg gcccttctca tgcagatgac gggcaggagg
600
tctgcccaaca gcccagtggg cacaacacca aagcaccctt cccagtctac agtggtgtcg
660
aaggggaacg ccaactctgc ctcaaaaacc aaagataaac tgaacaagag aaacgagcgt
720
ggagagaccc gcctgcaccg agccgccatc cgcggggacg cccggcgcat caaagagctc
780
atcagcgagg gggcagacgt caacgtcaag gacttcgcag gctggacggc gctgcacgag
840
gcttgtaacc ggggctacta cgacgtcgcg aagcagctgc tgggtgcagg tgcggagggtg
900
aacaccaagg gcctagatga cgacagcct tgcacgagc ctgccaacaa cgggcactac
960
aaggtgtgta agctgctgct gcgggtacgga gggaaacccg agcagagcaa caggaaaggc
1020
gagacgcgcg tgaagtggc caactcccc acgatggtag acctcctgtt aggcaaggc
1080
acttacactt ccagcgagga gagctcgac gagagctcag aagaggaaga cgcaccatcc
1140
ttcgacactt ccagttcagt cgacggcaac aacacggact ccgagttcga aaaaggcctc
1200
aagcacaagg ccaagaaccc agagccacag aaggccacgg ccccgctcaa ggcagagtat
1260
gagtttgatg aggacgacga gcaggacagg gttcctccgg tggacgacaa gcaccttatg
1320

```

aaaaaggact acagaaaaga aacgaaatcc aatagtttta tctctatacc caaaatggag
 1380
 gttaaaagtt acactaaaaa taacacgatt gcaccaaga aagcgtccca tcgtatcctg
 1440
 tcagacacgt cggacgagga ggacgcgagt gtcaccgtgg ggacaggaga gaagctgaga
 1500
 ctctcggcac atacgatatt gcctggtagt aagacacgag agccttctaa tgcaaacgag
 1560
 cagaaggaaa aaaataaagt gaaaaagaag cgaagaaaag aaacaaaagg cagagagggt
 1620
 cgcttcggaa agcggagcna tagttctgct cctcggagtc ggagagcgag tcctcagaga
 1680
 gtggggagga tgacaggac tctctgggga gctctggctg cctcaagggg tcccgcctgg
 1740
 tgctgaagga cccctccctg ttcagctccc tctctgcctc ctccacctcg tctcacggga
 1800
 gctctgcgc ccagaagcag aaccccagcc acacagacca gcaccaag cactggcgga
 1860
 cagacaattg gaaaaccatt tcttcccggt cttggtcaga ggtcagttct ttatcagact
 1920
 ccacaaggac gagactgaca agcaggtct
 1949

<210> 6150

<211> 508

<212> PRT

<213> Homo sapiens

<400> 6150

Met Pro Lys Gly Gly Cys Pro Lys Ala Pro Gln Gln Glu Glu Leu Pro
 1 5 10 15
 Leu Ser Ser Asp Met Val Glu Lys Gln Thr Gly Lys Lys Asp Lys Asp
 20 25 30
 Lys Val Ser Leu Thr Lys Thr Pro Lys Leu Glu Arg Gly Asp Gly Gly
 35 40 45
 Lys Glu Val Arg Glu Arg Ala Ser Lys Arg Lys Leu Pro Phe Thr Ala
 50 55 60
 Gly Ala Asn Gly Glu Gln Lys Asp Ser Asp Thr Glu Lys Gln Gly Pro
 65 70 75 80
 Glu Arg Lys Arg Ile Lys Lys Glu Pro Val Thr Arg Lys Ala Gly Leu
 85 90 95
 Leu Phe Gly Met Gly Leu Ser Gly Ile Arg Ala Gly Tyr Pro Leu Ser
 100 105 110
 Glu Arg Gln Gln Val Ala Leu Leu Met Gln Met Thr Ala Glu Glu Ser
 115 120 125
 Ala Asn Ser Pro Val Asp Thr Thr Pro Lys His Pro Ser Gln Ser Thr
 130 135 140
 Val Cys Gln Lys Gly Thr Pro Asn Ser Ala Ser Lys Thr Lys Asp Lys
 145 150 155 160
 Leu Asn Lys Arg Asn Glu Arg Gly Glu Thr Arg Leu His Arg Ala Ala
 165 170 175
 Ile Arg Gly Asp Ala Arg Arg Ile Lys Glu Leu Ile Ser Glu Gly Ala
 180 185 190
 Asp Val Asn Val Lys Asp Phe Ala Gly Trp Thr Ala Leu His Glu Ala

tactttcctt cgcaccgtag ggacaagtgt ggggatccgc ttggggctcc aaggccctgc
 300
 ccgcactggc agcaccaagc ggggttagaa tgactggaag gagcagggaa ggaagatggg
 360
 tgtcaactgt cccggccagt ggctgctgac atgtgtgtgt gaacagggaa aaggccaccc
 420
 tctccactgt ttctcccgtc tctcgggttc tctcgggaga cccgcagggc tgcccagagt
 480
 agctccaggt tgccctgggt cgctggggct tggtcggcat cctcctccgc tagtcgctc
 540
 ccgcgttcca cagcgccccg ccgctcggtg tgcacgcact ggggcttaac ccagccgaca
 600
 aggcacgctt gccaaagagg cgcgggtgtg tgtgtgcggg gtccgcgg
 648

<210> 6152

<211> 130

<212> PRT

<213> Homo sapiens

<400> 6152

Met Arg Thr Lys Pro Gln Arg Pro Arg Ala Thr Arg Ser Tyr Leu Gly
 1 5 10 15
 Gln Pro Cys Gly Ser Pro Arg Arg Thr Glu Glu Thr Gly Glu Thr Trp
 20 25 30
 Glu Arg Val Ala Phe Ser Leu Phe Thr His Thr Cys Thr Gln Pro Leu
 35 40 45
 Ala Gly Thr Val Asp Thr His Leu Pro Ser Leu Leu Pro Val Ile
 50 55 60
 Leu His Pro Leu Gly Ala Ala Ser Ala Gly Arg Ala Leu Glu Pro Lys
 65 70 75 80
 Ala Asp Pro His Thr Cys Pro Tyr Gly Arg Lys Glu Ser Arg Gly Glu
 85 90 95
 Lys Val Arg Arg Gly Arg Ala Lys Ser Asn Ser Gly Pro Asn Val Pro
 100 105 110
 Gly Pro Pro Ala Ala Pro Gln Ser Leu Lys Ser Gly Ser Pro Ser Thr
 115 120 125
 Arg Arg
 130

<210> 6153

<211> 1810

<212> DNA

<213> Homo sapiens

<400> 6153

gatgcagtta cctgtgtgga cttcagttatc aacacaaagc agctggccag tggtnccattg
 60
 gactcatgcc tcatggtctg gcacatgaag ctgcagtcac gcgcctaccg cttcactggc
 120
 cacaaggatg ccgtcacctg tgtgaacttc tctccttcgg gagacctgct tgcttcgggc
 180
 tcccagagaca agactgtccg catctgggta cccaatgtca aaggtgagtc cactgtgttt
 240

cggtgcacaca cagccacagt gaggagtgtc cacttctgca gtgatggcca gtccttcgtg
300
acagcctctg acgacaagac agtcaaatgt tggggcaactc atcgccagaa attcctgttc
360
tcctctgagcc agcatatcaa ctgggtccgc tgtgccaaatg tctccccoga cgggcggtctc
420
atcgtgtctg ccagtgtatga caagactgtt aagctgtggg acaagagcag cggggaatgt
480
gtccactcgt attgtgagca tggcggcctt gtcacctatg tggacttcca cccagtgagg
540
acgtgcattg ccgctgccgg catggacaac acagtgaagg tgtgggacgt cgggactcac
600
cggctgtctgc agcattatca gttgcacagt gcagcagtga acgggctctc ttccaccocg
660
tcgggaaact acctgatcac agcctccagt gactcaaccc tgaagatcct ggacctgatg
720
gagggccggc tgctctacac actccacggg catcagggag cagccaccac tgtgtccttt
780
tcaagaacgg gggagtattt tgctctgga ggctctgatg aacaagtgat ggtttggaag
840
agtaactttg atattgttga tcatggagaa gtcacgaaag tgcgagggcc cccagccaca
900
ctggccagct ccatggggaa tctgccagaa gtggacttcc ctgtccccc aggcagaggc
960
tggagtgtgg agtctgtgca gagccagccc caggagcccg tgagtgtgcc ccagacactg
1020
actagcacgc tggagcacat tgtgggccag ctggatgtcc tcaactcagac agtctccatt
1080
ctggagcagc ggttgacact gacagaagac aagctgaagc agtgtctgga gaaccagcag
1140
ctaactcatgc agagagcaac accatgatca ggggagcagg aatcaggagc tgggtggatt
1200
tgcaagggtgc aggcagggga ttgtaccat gggacttggg taaataaagg ggactgaact
1260
ctgtgggaat cacatccata ctggagccct ggatttttgc agttctgccc tcaccttgc
1320
tatctgcacc aggaggctct ccacctggca gccagaggtc cccagtgggc cgggctcaca
1380
cacaatatgat gcttcagacc cgaatgagag gaccacattt tgcttaatgt aaaggagcca
1440
cttgaaaatg tctgtcctct cggggctcct agatttgtgc tcccctctg gaggaggtgg
1500
ctccacgatg ccttgatctt cactcatcat ttggacatgt gactggcttt tcttacctct
1560
gccatgggtg agaattgat tgcacattga ttggatgagc cgggggtttt ctctaaatct
1620
gactaaaggc ccaaagtggg cccatctgag tcaggtttgt tgagaacaag cctctcaag
1680
tggggtgggtg cttttcagtg gccctgatct ctgttccaca cgtgttctact ggagccaggt
1740
gacttccctc ttgcgtgagt gagggcacag gaattctcaa attaaacctg acttcattgc
1800
aaaaaaaaa
1910

<210> 6154
 <211> 388
 <212> PRT
 <213> Homo sapiens

<400> 6154
 Asp Ala Val Thr Cys Val Asp Phe Ser Ile Asn Thr Lys Gln Leu Ala
 1 5 10 15
 Ser Gly Xaa Met Asp Ser Cys Leu Met Val Trp His Met Lys Leu Gln
 20 25 30
 Ser Arg Ala Tyr Arg Phe Thr Gly His Lys Asp Ala Val Thr Cys Val
 35 40 45
 Asn Phe Ser Pro Ser Gly His Leu Leu Ala Ser Gly Ser Arg Asp Lys
 50 55 60
 Thr Val Arg Ile Trp Val Pro Asn Val Lys Gly Glu Ser Thr Val Phe
 65 70 75 80
 Arg Ala His Thr Ala Thr Val Arg Ser Val His Phe Cys Ser Asp Gly
 85 90 95
 Gln Ser Phe Val Thr Ala Ser Asp Asp Lys Thr Val Lys Val Trp Ala
 100 105 110
 Thr His Arg Gln Lys Phe Leu Phe Ser Leu Ser Gln His Ile Asn Trp
 115 120 125
 Val Arg Cys Ala Lys Phe Ser Pro Asp Gly Arg Leu Ile Val Ser Ala
 130 135 140
 Ser Asp Asp Lys Thr Val Lys Leu Trp Asp Lys Ser Ser Arg Glu Cys
 145 150 155 160
 Val His Ser Tyr Cys Glu His Gly Gly Phe Val Thr Tyr Val Asp Phe
 165 170 175
 His Pro Ser Gly Thr Cys Ile Ala Ala Ala Gly Met Asp Asn Thr Val
 180 185 190
 Lys Val Trp Asp Val Arg Thr His Arg Leu Leu Gln His Tyr Gln Leu
 195 200 205
 His Ser Ala Ala Val Asn Gly Leu Ser Phe His Pro Ser Gly Asn Tyr
 210 215 220
 Leu Ile Thr Ala Ser Ser Asp Ser Thr Leu Lys Ile Leu Asp Leu Met
 225 230 235 240
 Glu Gly Arg Leu Leu Tyr Thr Leu His Gly His Gln Gly Pro Ala Thr
 245 250 255
 Thr Val Ala Phe Ser Arg Thr Gly Glu Tyr Phe Ala Ser Gly Gly Ser
 260 265 270
 Asp Glu Gln Val Met Val Trp Lys Ser Asn Phe Asp Ile Val Asp His
 275 280 285
 Gly Glu Val Thr Lys Val Pro Arg Pro Pro Ala Thr Leu Ala Ser Ser
 290 295 300
 Met Gly Asn Leu Pro Glu Val Asp Phe Pro Val Pro Pro Gly Arg Gly
 305 310 315 320
 Trp Ser Val Glu Ser Val Gln Ser Gln Pro Gln Glu Pro Val Ser Val
 325 330 335
 Pro Gln Thr Leu Thr Ser Thr Leu Glu His Ile Val Gly Gln Leu Asp
 340 345 350
 Val Leu Thr Gln Thr Val Ser Ile Leu Glu Gln Arg Leu Thr Leu Thr
 355 360 365
 Glu Asp Lys Leu Lys Gln Cys Leu Glu Asn Gln Gln Leu Ile Met Gln

```

      370              375              380
Arg Ala Thr Pro
385

<210> 6155
<211> 995
<212> DNA
<213> Homo sapiens

<400> 6155
aacagccaca gacgtatgtg taatatgatg ggcttttagaa tgtacctgca aagcagtttt
60
tttttttttt ccatittggag gaaaaaagat gaaccacaaa agactgaatt gggatgctaa
120
aataacagcg atttattatt aaggaaatga tacgcttttg tcccattcaa ataatgtttt
180
tattccccct ttctttatct ttgggagggtt cctattgttg tgccaggctg ttttcaactga
240
acgattttta aaggatttca ccagtcaccac gtgtgaccgg ttgcattttt actgtgcagg
300
accatcgtga agcctgtggc caaagagttt gatccagaca tggctcttagt atctgctgga
360
tttcatgcat tggaaggcca caccctctct ctaggagggtt acaaagtgac ggcacaaatgt
420
tttggctcatt tgacgaagca attgatgaca ttggctgatg gacgtgtggt gttggctcta
480
gaaggaggac atgatctcac agccatctgt gatgcatac aagcctgtgt aaatgccctt
540
ctaggaaatg agctggagcc acttgacagaa gatattctcc accaaagccc gaatatgaat
600
gctgttattt ctttacagaa gatcattgaa attcaaaaac tgctgggtgag cctatggaag
660
aggagccagc cttgtgaagt gccaaagccc cctctgatat ttctgtgtgt tgacatcatt
720
gtgtatcccc ccacccaggt accctcagac atgtcttctg tgctgcctgtt ggtggcacaga
780
ttcaatggaa cataaacact gggcacaaaa ttctgaacag cagcttcact tgttcttttg
840
atggacttga aagggcatta aagattcctt aaacgtaacc gctgtgattc tagagttaca
900
gtaaacacag attggaagaa actgcttcca gcactctttt aatatgctgtg gtgaccacat
960
cctagacacc aagtttgaac tagaacatt cagta
995

<210> 6156
<211> 164
<212> PRT
<213> Homo sapiens

<400> 6156
Thr Ile Val Lys Pro Val Ala Lys Glu Phe Asp Pro Asp Met Val Leu
1           5           10          15
Val Ser Ala Gly Phe Asp Ala Leu Glu Gly His Thr Pro Pro Leu Gly

```


atcgacgtca atgagatctc acgccacctg gccaagatgt atagtggat gatcttcgtc
 900
 aatggcttgc tgcactgcga tccccacccc ggcaacgtac tgggtgcgaa gacccccggc
 960
 acgggaaaagg cggagattgt cctgttggac catgggcttt accagatgct caggaagaa
 1020
 ttccgcctga attactgcc cctctggcag tctctgatct ggactgacat gaagagagt
 1080
 aaggagtaca gccagcgact gggagccggg gatctctacc cctgtttgc ctgatgctg
 1140
 acggcgcgat cgtgggactc ggtcaacaga ggcacagcc aagctcccg cactgccact
 1200
 gaggacttag agattcgcaa caacgcggcc aactacctcc ccagatcag ccactctctc
 1260
 aaccacgtgc cgcgccagat gctgctcatc ttgaagacca acgacctgct gcgtggcatt
 1320
 gaggccgccc tgggcacccc cgcagcgcc agctctcttc tcaacatgct acgttgctgc
 1380
 atcagagcgc tagctgagca caagaagaag aatacctgtt cattcttcag aaggaccag
 1440
 atctctttca gcgagccctt caacttatgg cagatcaacc tccatgagct catctgcgt
 1500
 gtgaaggggt tgaagctggc tgaccgggtc ttggccctaa tatgctggct gtccctgct
 1560
 ccactctgag tggcaattgct ctccctgccc cattctgggt tctttccact cctcagcccc
 1620
 tcatcttgcc tccaccacgc tgetccattt ttgccacatc gtggcccgca gccccagagt
 1680
 cactgtccat gtcaccatcc ttctctctct ttggaatcct ctccgcacac tgtggccctt
 1740
 gtctcagggc ccacaagctg aactgtggca tagctctctc ttctcttcca agaagactca
 1800
 gcagcctaca ttcccattcc tggatgtgc cattgggttg gatgtcccca ctacttcgt
 1860
 taacccttcc cattgtcaag atgtgccacg ggtgccactg ggggcacact gaactgtag
 1920
 ggagtgtgat tttgtggag gtgcacatgg tctctgaatt tgacagagaa cactctccct
 1980
 ttcttgcca gtgcaccctc cagaggaaat cacacctcag cgaggtggtt tggcatctgg
 2040
 ggccaactcc attacagcta tgagctcact gctgtcagtg acgttttggt tttctgtac
 2100
 tgtgtttcaa taaaactcc ttcaagggtg aaaaa
 2135

<210> 6158

<211> 455

<212> PRT

<213> Homo sapiens

<400> 6158

Met Ala Arg Lys Ala Leu Lys Leu Ala Ser Trp Thr Ser Met Ala Leu

1

5

10

15

Ala Ala Ser Gly Ile Tyr Phe Tyr Ser Asn Lys Tyr Leu Asp Pro Asn

	20		25		30
Asp	Phe	Gly	Ala	Val	Arg
	35			Val	Gly
				40	
Ile	Ser	Tyr	Asp	Tyr	Leu
	50			Thr	Ser
				55	
Glu	Glu	Tyr	Leu	Gln	Leu
	65			Arg	Ser
				70	
Phe	Asp	Asp	Thr	Pro	Leu
				85	
				90	
Ala	Val	Leu	His	Asp	Gly
				100	
				105	
Lys	Val	Arg	Ala	Gln	Ser
				115	
				120	
Val	Leu	Ala	Val	Lys	Gln
				130	
				135	
Val	Asp	Glu	Ala	Lys	Lys
				145	
				150	
Glu	Gly	Arg	Asn	Ala	Glu
				165	
				170	
Phe	Leu	Lys	Val	Pro	Arg
				180	
				185	
Leu	Leu	Met	Glu	Phe	Val
				195	
				200	
Met	Glu	Arg	Asn	Lys	Ile
				210	
				215	
Lys	Met	Tyr	Ser	Glu	Met
				225	
				230	
Pro	His	Pro	Gly	Asn	Val
				245	
				250	
Ala	Glu	Ile	Val	Leu	Leu
				260	
				265	
Glu	Phe	Arg	Leu	Asn	Tyr
				275	
				280	
Asp	Met	Lys	Arg	Val	Lys
				290	
				295	
Leu	Tyr	Pro	Leu	Phe	Ala
				305	
				310	
Val	Asn	Arg	Gly	Ile	Ser
				325	
				330	
Glu	Ile	Arg	Asn	Asn	Ala
				340	
				345	
Leu	Asn	His	Val	Pro	Arg
				355	
				360	
Leu	Leu	Arg	Gly	Ile	Glu
				370	
				375	
Ser	Phe	Leu	Asn	Met	Ser
				385	
				390	
Lys	Lys	Lys	Asn	Thr	Cys
				405	
				410	
Ser	Glu	Ala	Phe	Asn	Leu
				420	
				425	
Arg	Val	Lys	Gly	Leu	Lys
				435	
				440	
Trp	Leu	Phe	Pro	Ala	Pro
				445	

450
455

<210> 6159
<211> 4310
<212> DNA
<213> Homo sapiens

<400> 6159
ctcgagggtgc ggcgcgggcc ggactcggcg ggcatcgccc tctacagcca tgaagatgtg
60
tgtgtcttta agtgtctcagt gtcccagagag acagagtgcga gccgtgtggg caagcagtc
120
ttcatcatca cctcgggctg caacagcgtc ctcatccagt tcgccacacc caacgatttc
180
tgttccttct acaacatcct gaaaacctgc cggggccaca cctgggagcg gtctgtgttc
240
agcagcgga cggaggagtc ttctgccgtg cagtacttcc agttttatgg ctacctgtcc
300
cagcagcaga acatgatgca ggactacgtg cggacaggca cctaccagcg cgccatcctg
360
caaaaccaca ccgacttcaa ggacaagatc gttcttgatg ttggtgtgtg ctctggggatc
420
ctgtcgtttt ttgccgccca agctggagca cggaaaatct acgcggtgga ggccagcacc
480
atggccagc acgctgaggt ctgtgtgaag agtaacaacc tgacggaccg catctgtgtc
540
atccgggga aggtggagga ggtgtcactc ccgagcagg tggaacatcat catctcggag
600
cccatgggct acatgtctct caacgagcgc atgctggaga gctacctca gcccaagaag
660
tacctgaagc ccagcggaaa catgtttcct accattgttg acgtccacct tgacccttc
720
acggatgaac agctctacat ggagcagttc accaaggcca acttcttgta ccagccatct
780
ttccatggag tggacctgtc gccctccga ggtgccgagg tggatgagta ttccggcag
840
cctgtgtgtg acacatttga catccgagtc ctgatggcca agtctgtcaa gtacacggtg
900
aactctctag aagccaaaga aggagatttg cacaggatag aantcccatc caaatccac
960
atgtgtcatt cagggtgtgt ccacggcctg gctttctgtt ttgacgttgc ttctcagggc
1020
tcataaatga ccgtgtggct gtccacagcc ccgacagagc cctgaccca ctggtaccag
1080
gtgcgggtgc tgttccagtc accactgttc gccaaaggcag ggacacgct ctcagggaca
1140
tgtctgttta ttgccaaaca aagacagagc tacgacatca gtattgtggc ccagggtggac
1200
cagaccggct ccaagtccag taacctctg gatctgaaaa accctctctt tagatacag
1260
ggcacaacgc cctcaccctc acccggctcc cactacacat ctccctcgga aaacatgtgg
1320
aacacgggca gcacctaca cctcagcagc gggatggccg tggcagggat gccgaccgcc
1380

tatgacttga gcagtgttat tgcagtggtc tccagcgtgg gccacaacaa cctgattcct
1440
ttagccaaca cggggattgt caatcacacc cactcccga tgggtccat aatgagcacg
1500
gggattgtcc aagggtcctc cgggcccccag ggagtggtg gtggcagcac gagtgtccac
1560
tatgcagtca acagccagtt caccatgggc ggccccgcca tctccatggc gtgccccatg
1620
tccatcccga ccaacacat gcactacggg agctaggggg ccgccccgcg gactgacagc
1680
accaggaaac caaatgatgt cctgccccg cgcccccgcc gggcggttct cccctttgta
1740
ctggagaagc tcgaacaccc ggtcacagct ctctttgcta tgggaactgg gacacttttt
1800
tacacgatgt tgccgctgc cccaccctaa cccccacctc ccggccctga cggtgtgtcg
1860
ctgccatatt ttacacaaaa tcatgttgtg ggagccctgc tcccccttc tccccctct
1920
accctgacct gggcttgtca tctgtggaa caggcgccat ggggcctgcc agccctgcct
1980
gccaggtecc ttagcacctg tccccctgcc tgtctccagt gggaaggtag cctggccagg
2040
cggggcctcc ccttcgacga ccaggcctcg gtcacaacgg acgtgacatg ctgctttttt
2100
taattttatt tttttatgaa aagaaccagt gtcaatccgc agaccctctg tgaagccagg
2160
cgggcggggc cgagccagca gccctctcc ctgactcag aggcgcgcg gggaggggtg
2220
gccccgcga ggcttcaggg gccccctccc caccaaaggg ttcacctcac acttgaatgt
2280
acaaccaccc ccaactgtcg gaaggcctcc gtccctcgcc cctgcctctt gctgtgtcc
2340
tgtccccgag cccctgcagg tcccccccg cccccccact caagagttag agcaggtggc
2400
tgcaggcctt gggcccgagg ggaaggccac tgccggccac ttggggcaga cacagacacc
2460
tcaaggatct gtcacggaag gcgtcctttt tcctttagc taacgttagg cctgagttag
2520
tcccctccat cctttagac gctccagtc ctactactgt gacggcattt ccactccctc
2580
cctgccccgg aagggaacct gcagggaacct ctccctccaa aaaaagaaaa aaagaaaaag
2640
aaagaaaaaa taaatgagga aacgtgttgc agcacaggca gtittcttct ccttctgtct
2700
cctgtttct cataccacca aactcagatg ctggagctca gggcccgct gtgtgcaccc
2760
aggcaggagc gggcgctgtc caggctgggc cgccccctg gctctccctc ctgttccagg
2820
ggagccatag gagggaaagc aggtggcccc ggggggatat gggggcccca gccctgtccc
2880
aaagctccct gctcggtgc ccctgcccc cctttatata aattctctga atcacctttg
2940
catagaaaat aaaagtgttt gctttgtaag aaaagtctgg aaagtagcag aatcatctca
3000

aggtgtcaaa ggagccttca gtcacgtctt ggggggcagg acaggcagag gggttgggcc
 3060
 acttaggtgt tgctgaaag aaagaattgt ctgtgggacc cgggccttcc taggaggggg
 3120
 ccaggggactg cggcaaggta ggggacacg cgtgtttga gggcagagat gtgatttggg
 3180
 gtggaggagc cactttctcc ggaggcagcg actggaagaa gtacaactta cagcccatgg
 3240
 ccaggaggggc gtggagcagc acgaccacgg acagcagcac tgtggccacc agcctgggtgt
 3300
 cctcacggac cagggccag aggggtgaata ccagcccgcg ggctgacagg cccaggggcca
 3360
 gcgccccaaa gagccactgc agccaaggca cagggatgag ccacaggacc accatggggg
 3420
 tgaagacaaa gagggagtag ccgtagatgc acacagtctc caggaaagggt tagggcccca
 3480
 tgcgctcctg gacacccttg cgcaccgcga ggaagcccca caggggccagg ggcaccagcc
 3540
 acgcatagca gtatgtctg atgcctgccca cggtcacctt gtggaaactgg gggctgtagt
 3600
 ggaatggaggg gtccctcctc tgggcccagca ccagcgtcag gttgccagtg acggccaggga
 3660
 caaaggccaa cgtggcacag atccagaagg gccatacacg atccggccga tccgcagat
 3720
 ggtgcgcgac aaagtgtgg ccaggcccg gacagcagta gcctttgatc cggtcacagga
 3780
 cctgtgaggt gtccacgtca aagaagctct gatagtagct gaaggtccag aatcccggt
 3840
 gctgctgctg ctgctgctcc tgcaggagcg cggccttgtc actctctcc tccacctcat
 3900
 cctcggctcc atagctgcca cctgagccca cggccacagc cactgacctt tgtgggggtca
 3960
 gctgactcgt tctgctgggt gtggctgcat ctgggggtgt agccagaaga ttagtgccct
 4020
 cctcgaattc atggaaggta agctcgtcgg ccgatgccat ggtcgttcag gggcgtctcc
 4080
 gcatccctcg ctggcgacca actgcaccca cggaggcttg aactcgtcgt cccgtcccca
 4140
 caggtgcgct ccgccccccc tcacctgagg ccacctggcg cggcgtggct ggggctccat
 4200
 cctgtgcctt ggctgcagtg gctctttggg gcgctggccc tgggctgttc agcccgccggg
 4260
 ctggtattca cctctctggc cgtgggtcgt gaggacacca ggctgggtggc
 4310

<210> 6160

<211> 551

<212> FRT

<213> Homo sapiens

<400> 6160

Leu Glu Val Arg Ala Gly Pro Asp Ser Ala Gly Ile Ala Leu Tyr Ser

1

5

10

15

His Glu Asp Val Cys Val Phe Lys Cys Ser Val Ser Arg Glu Thr Glu

	20		25		30
Cys	Ser	Arg	Val	Gly	Lys
	35			Gln	Ser
				40	Phe
					Ile
					Ile
					Thr
					Leu
					Gly
					Cys
					Asn
Ser	Val	Leu	Ile	Gln	Phe
	50			55	Thr
					Pro
					Asn
					Asp
					Phe
					Cys
					Ser
					Phe
					Tyr
Asn	Ile	Leu	Lys	Thr	Cys
	65			70	Arg
					Gly
					His
					Thr
					Leu
					Glu
					Arg
					Ser
					Val
					Phe
					Gln
					Phe
					Tyr
Ser	Glu	Arg	Thr	Glu	Glu
				85	Ser
					Ser
					Ala
					Val
					Gln
					Tyr
					Phe
					Gln
					Phe
					Tyr
Gly	Tyr	Leu	Ser	Gln	Gln
				90	Asn
					Met
					Met
					Gln
					Asp
					Tyr
					Val
					Arg
					Thr
Gly	Thr	Tyr	Gln	Arg	Ala
				100	Ile
					Leu
					Gln
					Asn
					His
					Thr
					Asp
					Phe
					Lys
					Asp
Lys	Ile	Val	Leu	Asp	Val
				115	Gly
					Cys
					Gly
					Ser
					Gly
					Ile
					Leu
					Ser
					Phe
					Phe
Ala	Ala	Gln	Ala	Gly	Ala
				130	Arg
					Lys
					Ile
					Tyr
					Ala
					Val
					Glu
					Ala
					Ser
					Thr
Met	Ala	Gln	His	Ala	Glu
				145	Val
					Leu
					Val
					Lys
					Ser
					Asn
					Asn
					Leu
					Thr
					Asp
Arg	Ile	Val	Ile	Pro	Gly
				165	Lys
					Val
					Glu
					Glu
					Val
					Ser
					Leu
					Pro
					Glu
Gln	Val	Asp	Ile	Ile	Ile
				180	Ser
					Glu
					Pro
					Met
					Gly
					Tyr
					Met
					Leu
					Phe
					Asn
Glu	Arg	Met	Leu	Glu	Ser
				210	Tyr
					Leu
					His
					Ala
					Lys
					Lys
					Tyr
					Leu
					Lys
					Pro
Ser	Gly	Asn	Met	Phe	Pro
				225	Thr
					Ile
					Gly
					Asp
					Val
					His
					Leu
					Ala
					Pro
					Phe
Thr	Asp	Glu	Gln	Leu	Tyr
				245	Met
					Glu
					Gln
					Phe
					Thr
					Lys
					Ala
					Asn
					Phe
					Trp
Tyr	Gln	Pro	Ser	Phe	His
				260	Gly
					Val
					Asp
					Leu
					Arg
					Gln
					Pro
					Val
					Val
					Asp
					Thr
					Phe
					Asp
					Ile
Arg	Ile	Leu	Met	Ala	Lys
				275	Ser
					Val
					Lys
					Tyr
					Thr
					Val
					Asn
					Phe
					Leu
					Glu
Ala	Lys	Glu	Gly	Asp	Leu
				295	His
					Arg
					Ile
					Glu
					Ile
					Pro
					Phe
					Lys
					Phe
					His
Met	Leu	His	Ser	Gly	Leu
				310	Val
					His
					Gly
					Leu
					Ala
					Phe
					Trp
					Phe
					Asp
					Val
Ala	Phe	Ile	Gly	Ser	Ile
				325	Met
					Thr
					Val
					Trp
					Leu
					Ser
					Thr
					Ala
					Pro
					Thr
Glu	Pro	Leu	Thr	His	Trp
				340	Tyr
					Gln
					Val
					Arg
					Cys
					Leu
					Phe
					Gln
					Ser
					Pro
Leu	Phe	Ala	Lys	Ala	Gly
				355	Asp
					Thr
					Leu
					Ser
					Gly
					Thr
					Cys
					Leu
					Leu
					Ile
Ala	Asn	Lys	Arg	Gln	Ser
				370	Tyr
					Asp
					Ile
					Ser
					Ile
					Val
					Ala
					Gln
					Val
					Asp
Gln	Thr	Gly	Ser	Lys	Ser
				385	Ser
					Asn
					Leu
					Leu
					Asp
					Leu
					Lys
					Asn
					Pro
					Phe
Phe	Arg	Tyr	Thr	Gly	Thr
				405	Pro
					Ser
					Pro
					Pro
					Gly
					Ser
					His
					Tyr
Thr	Ser	Pro	Ser	Glu	Asn
				420	Met
					Trp
					Asn
					Thr
					Gly
					Ser
					Thr
					Tyr
					Asn
					Leu
Ser	Ser	Gly	Met	Ala	Val
				435	Ala
					Gly
					Met
					Pro
					Thr
					Ala
					Tyr
					Asp
					Leu
					Ser

450	455	460
Ser Val Ile Ala Ser Gly Ser Ser Val Gly His Asn Asn Leu Ile Pro		
465	470	475
Leu Ala Asn Thr Gly Ile Val Asn His Thr His Ser Arg Met Gly Ser		480
	485	490
Ile Met Ser Thr Gly Ile Val Gln Gly Ser Ser Gly Ala Gln Gly Ser		495
	500	505
Gly Gly Gly Ser Thr Ser Ala His Tyr Ala Val Asn Ser Gln Phe Thr		510
	515	520
Met Gly Gly Pro Ala Ile Ser Met Ala Ser Pro Met Ser Ile Pro Thr		525
	530	535
Asn Thr Met His Tyr Gly Ser		540
545	550	

<210> 6161

<211> 1489

<212> DNA

<213> Homo sapiens

<400> 6161

```

ggctgcacga tcttcagcag attcagtaca gaggggaagtg agctgtggga gaggaaggag
60
gatgggggaa atggcaagaa aaggagcacc ctgcttagaa aggaacgga gccgggtgtg
120
gtggctcacg cctgcaatcc anacaccttg ggaggccgaa gcaaggagat cacctgagcc
180
caagagtttg agaccaccca catagcaaga ccccatctct attttttgga aaaaaaaaaa
240
aaaagcagca accagcagga tgggtggaaa aaagtgtgtg aaggctcttc aagatcctct
300
ctgcctgtct cttctctcac agaggacagac gggagggtga tgagtcagtg gactgaatgt
360
ccccatgggg atgaaggatg gttgggggtca gggctcctaga gggagggtgt gaaggaggga
420
aggagatggc cagagaagga tgtaggacac agaggtgccg ccgtggatca ccaagagggt
480
caggactggc cagaggaagg agaggagatc aaggcaagca tgaggcactt gggagatgca
540
tctgtgacct caccacagctg aaatccccag gaaataagac gggagcaggg tgggtttctg
600
cagccgaggt gagaccaaag tgccagctca ctgccaccc cagtaaagac taacttgccc
660
ttccccacaa ctccccctcc agaagtagct tgctctcttc tgctgtccac acatcggggg
720
gtcagggaag agctccccct ccctggacag ctagtgttcc ctaggccaag gccagtcctt
780
gcagagatga ggagctggga aatccccctc tcccatcccg cagtcacacg cgtgccagat
840
ctgtgtgtgc gggcttttca caccagacct cttagacgtg tagcctgtga ggcgggtgct
900
gttgtctctc ctctccattt tgcaactgag caaacagcct gaaagagaca aaaccagggt
960
agttagcatg accccaaaagc cactccctgg tctacgtgtg tctgcagcct gagcctgggg
1020

```

tggccagggtg gggtttgca gtgagggggg gaaggagaat agccccaaa aatgctgccg
 1080
 gaatgggtaaa gggcctggac tgcaaagcta gtgacttgag ctttatcttg tggcactgga
 1140
 ggttttccca gtcattgtaa tgatacaatc agatttgcgt tgtcttcaag ttaccatggg
 1200
 aaccgtactt ccacccacca agagtggatt ggagaaggca aaactaggcg agagaagcca
 1260
 gggagtgttg agaaggtctg aaccagaca gtgggcagct gggcccaag acggatgggg
 1320
 gactccagaa gcgtggagct ggcagagaga aacctgccc gggcatcaga gaaaaggcg
 1380
 actgtgcagg aacagagtag atgaggtggg gaacctttg gtaagaagag ctgaatcagg
 1440
 agcattgagg cagcgggtttt caaacctcag aagcaacagc agggccggc
 1489

<210> 6162

<211> 58

<212> PRT

<213> Homo sapiens

<400> 6162

Gly	Cys	Met	Ile	Phe	Ser	Arg	Phe	Ser	Thr	Glu	Gly	Ser	Glu	Leu	Trp
1			5						10				15		
Glu	Arg	Lys	Glu	Asp	Gly	Gly	Asn	Gly	Lys	Arg	Ser	Thr	Leu	Leu	
			20				25					30			
Arg	Lys	Gly	Thr	Glu	Pro	Gly	Val	Val	Ala	His	Ala	Cys	Asn	Pro	Xaa
			35				40					45			
Thr	Leu	Gly	Gly	Arg	Ser	Lys	Glu	Ile	Thr						
	50					55									

<210> 6163

<211> 713

<212> DNA

<213> Homo sapiens

<400> 6163

gtggaaatga gcctctcatt aaaacacgtg ctttctggga gccgtgatga acgtgagtg
 60
 gagatgagtc cagctcgggt cagagccatg ggatgtgggt cactgtgacc cagtgggtca
 120
 cagggtgtga gcaaggaagg gctgggaggc tcaagcaaaa tctacaagaa aaatctaagg
 180
 gggcccagcc tctgccagga aaagcaggcc tggctctgct gaaaccccaa tcacgtctgt
 240
 atggataccg gtacctgggc aaggataccg tggatggact tgattcttct cctctgaaat
 300
 gtacgagaag gtgcctgcgg ggatttcggc tgcctgaaaa gcaacctctt aaaacccgag
 360
 tgtcattttt agaatacaaa aggaaggaag gcagtggcgt gctgcactgg tcagtaacga
 420
 gatctggagc ttttcgcctt aaggtcactg tttaaaactc tgccctgggt cagttgtaac
 480

agaaagtcac aactccctca caggcatcag ggtgcaactt tgaatgccaag gaggggctgt
 540
 gtctgttggt taccacgcgg cgagctcccc ggacacctcc tgacacctcc tgacagtgctc
 600
 tctttctcta ggagtctcct ctcttcccaac ccaccatggc ggcttggcct ggaggggagg
 660
 cattggggac tgagtctctc cccgacaggg agtctctctc cccctggcg cgc
 713

<210> 6164

<211> 120

<212> PRT

<213> Homo sapiens

<400> 6164

Met	Trp	Val	Thr	Val	Thr	Gln	Trp	Val	Thr	Gly	Ala	Glu	Gln	Gly	Arg
1			5					10					15		
Ala	Gly	Arg	Leu	Lys	Gln	Asn	Leu	Gln	Lys	Ser	Lys	Gly	Ala	Gln	
		20					25					30			
Pro	Leu	Pro	Gly	Lys	Ala	Gly	Leu	Ala	Leu	Leu	Lys	Pro	Gln	Ser	Arg
		35				40					45				
Ser	Asp	Gly	Tyr	Arg	Tyr	Leu	Gly	Lys	Asp	Thr	Val	Asp	Gly	Leu	Asp
	50				55				60						
Ser	Ser	Leu	Leu	Lys	Cys	Thr	Arg	Arg	Cys	Met	Arg	Gly	Phe	Arg	Leu
65				70					75					80	
Pro	Glu	Lys	Gln	Pro	Ser	Lys	Thr	Arg	Val	Ser	Phe	Leu	Glu	Ser	Lys
			85					90				95			
Arg	Lys	Glu	Gly	Ser	Gly	Trp	Leu	His	Trp	Ser	Val	Thr	Arg	Ser	Gly
		100				105						110			
Ala	Phe	Arg	Leu	Lys	Val	Thr	Val								
	115					120									

<210> 6165

<211> 1004

<212> DNA

<213> Homo sapiens

<400> 6165

cccagccgga tcgggcgggc aaggccggcg cggcgagcag caaccatgtc ggtgttcggg
 60
 aagctgttcg gggctggagg gggtaaggcc ggcaaggcg gcccgaaccc ccaggaggcc
 120
 atccagcggc tcggggacac ggaagagatg ttaagcaaga aacaggaggt cctggagaag
 180
 aaaaatcgagc aggagctgac ggccgccaag aagcacggca ccaaaaaaca gcgcgcggcc
 240
 ctccaggcac tgaagcgtaa gaagaggtat gagaagcagc tggcgagat cgacggcaca
 300
 ttatcaacca tcgagttcca gcgggaggcc ctggagaatg ccaacaccaa caccgaggtg
 360
 ctcaagaaca tgggctatgc cgccaaggcc atgaaggcgg cccatgacaa catggacatc
 420
 gataaagttg atgagttaat gcaggacatt gctgaccagc aagaacttgc agaggagatt
 480

tcaacagcaa tttcgaaacc tgtagggttt ggagaagagt ttgacgagga tgagctcatg
 540
 gcggaattag aagaactaga acaggaggaa ctacacaaga atttgctgga aatcagtgga
 600
 ccggaacag toctcttacc aaatgttccc tctatagccc taccatcaaa acccgccaag
 660
 aagaagaag agggaggacga cgacatgaag gaattggaga actgggctgg atccatgtaa
 720
 tggggtccag cgctggctgg gccagacag actgtggtgg cctgcgcagc gagcaggcgt
 780
 gtgcgtgtgt ggggcaggca ggatgtggtg caggcaggtt ccacgccttt cgactctcac
 840
 tccaaacgag tagggccgcg ttgctgctca ctctctgcat agcatggtct gcacctggga
 900
 gttggccggg gggagggggg cgagcgggct ggcacgtgcc tgctgtttat aatgttgaat
 960
 ttctgtaaaa taaactgtat ttgcaaatcc aaaaaaaaaa aaaa
 1004

<210> 6166

<211> 239

<212> PRT

<213> Homo sapiens

<400> 6166

Pro Ser Arg Ile Gly Arg Arg Arg Pro Ala Arg Arg Ala Ala Thr Met
 1 5 10 15
 Ser Val Phe Gly Lys Leu Phe Gly Ala Gly Gly Lys Ala Gly Lys
 20 25 30
 Gly Gly Pro Thr Pro Gln Glu Ala Ile Gln Arg Leu Arg Asp Thr Glu
 35 40 45
 Glu Met Leu Ser Lys Lys Gln Glu Phe Leu Glu Lys Lys Ile Glu Gln
 50 55 60
 Glu Leu Thr Ala Ala Lys Lys His Gly Thr Lys Asn Lys Arg Ala Ala
 65 70 75 80
 Leu Gln Ala Leu Lys Arg Lys Lys Arg Tyr Glu Lys Gln Leu Ala Gln
 85 90 95
 Ile Asp Gly Thr Leu Ser Thr Ile Glu Phe Gln Arg Glu Ala Leu Glu
 100 105 110
 Asn Ala Asn Thr Asn Thr Glu Val Leu Lys Asn Met Gly Tyr Ala Ala
 115 120 125
 Lys Ala Met Lys Ala Ala His Asp Asn Met Asp Ile Asp Lys Val Asp
 130 135 140
 Glu Leu Met Gln Asp Ile Ala Asp Gln Gln Glu Leu Ala Glu Glu Ile
 145 150 155 160
 Ser Thr Ala Ile Ser Lys Pro Val Gly Phe Gly Glu Glu Phe Asp Glu
 165 170 175
 Asp Glu Leu Met Ala Glu Leu Glu Glu Leu Glu Gln Glu Glu Leu Asp
 180 185 190
 Lys Asn Leu Leu Glu Ile Ser Gly Pro Glu Thr Val Pro Leu Pro Asn
 195 200 205
 Val Pro Ser Ile Ala Leu Pro Ser Lys Pro Ala Lys Lys Lys Glu Glu
 210 215 220
 Glu Asp Asp Asp Met Lys Glu Leu Glu Asn Trp Ala Gly Ser Met

225

230

235

<210> 6167

<211> 1220

<212> DNA

<213> Homo sapiens

<400> 6167

ngccatacag catttttagtt ttgttcttttc cattaactga agtcacgagg tatgcctect
 60
 tggaaactcc aacagttaag agattctcat gtattccatg aaataaaaaa caaagaaaaa
 120
 tcaaaacttg cttaatgaga tgggaagtgt ggatcaaaac ctgattgagc tgttctatgt
 180
 cctccacttc cccagtgcct tctctcctcc cgggtctgcg cggacgcggc ctccctactc
 240
 catttgtcct cgccccctcc cgtccctcta cgcgttttgg tccctgtttg gtgctttctg
 300
 tttgcagcta cggcagtgag tatgtatgtg acggaccccc agtcaaccgc ggcttgggac
 360
 ccctgcctac cctcctgttc gccagccgag ctgtggaact agcgcgtgcc ccctgcgcga
 420
 cctcggcgtc tccggtccgc cctcacttg tgggtggggc cagctcctgg tccctcagct
 480
 gcgcgcgcgc ccacgcggcc gggctgcggg tctagggggg ccgcatctcc ctggctttcc
 540
 aagggtacta gtcgtgatcc tagggcggct gggcgtccag ggcctcgggt ggggtggcgt
 600
 gtctgccctt tttatctccc cgcaaggccc ccagtcttct agggaaagca gtcagtgaag
 660
 cgcggaggtc cgggcgcgcc gagagagagt ccagtctttg aggaccgagt agtccctggc
 720
 caccctccgc ctctgctgtc agaagcagca gctgccgcgc tggaaatcaa aatttcggga
 780
 gctgtgaccc tttcctcatg taaacgagt agtcttggac gatctgggca taggaaccaa
 840
 tcagaaacaa tcgcttcagc aatcaagacc attgttcac atggaggaaac ccattggatac
 900
 ctctgagcct ctatctgcat taccattcac tgggcagcag tctttttgag caagtggcaa
 960
 atttggacag tatccatcga tgcagatgaa ccacatccag gcacttggga agtggaggag
 1020
 atagaacagc tcaatcagtg tttgatccaa cacttccatc tcattaagac aagtttgatt
 1080
 ttcttttgc ttttatttca tgggaatacat gagaatctct taactgttgg agtttccaa
 1140
 gaggcatacc tcatgacttc agttaatgga aagaacaaaa ctaaaatgct gtatggccaa
 1200
 agccacaaag ggaaggatcc
 1220

<210> 6168

<211> 90

<212> PRT

<213> Homo sapiens

<400> 6168

```

Ala Lys Trp Gln Ile Trp Thr Val Ser Ile Asp Ala Asp Glu Pro His
 1             5             10             15
Pro Gly Thr Gly Glu Val Glu Asp Ile Glu Gln Leu Asn Gln Cys Leu
          20             25             30
Ile Gln His Phe His Leu Ile Lys Thr Ser Leu Ile Phe Leu Cys Phe
          35             40             45
Leu Phe His Gly Ile His Glu Asn Leu Leu Thr Val Gly Val Ser Lys
          50             55             60
Glu Ala Tyr Leu Met Thr Ser Val Asn Gly Lys Asn Lys Thr Lys Met
65             70             75             80
Leu Tyr Gly Gln Ser His Lys Gly Lys Asp
          85             90

```

<210> 6169

<211> 720

<212> DNA

<213> Homo sapiens

<400> 6169

```

tgagggtctc gatccctctc ctgatttgct gtcagccatg aacggatgga tgtgatgcct
60
gctagccaaa aggtctccct ctgtgtgttg cagtcctgtg gcattatgca tgccccctcc
120
cagtgacccc aggcttttta tggctgtgaa acacgttaaa atttcagggt aagacgtgac
180
ctttgaggt gactataact gaagattgct ttacagaagc caaaaagggt tttttgagtc
240
atgatgcaag aatctgggac tgagacaaaa agtaacgggt cagccatcca gaatgggtcg
300
ggcggcagca accacttact agagtgcggc ggtcttcggg aggggcggtc caacggagag
360
acgccggccg tggacatcgg ggcagctgac ctgcgccacg cccagcagca gcagcaacag
420
tggcatctca taaaccatca gccctctagg agtcccagca gttggcttaa gagactaatt
480
tcaagccctt gggagtggga agtcctgcag gtcctctgtg gggagcagtt gctgagagca
540
agatgagtgg acctgtgtgt cagcctaacc cttccccatt ttgaataaaa ttattctttg
600
gagaaatggt tccactgctt ttcattgcaa aataaaaatt aaacgaaaaa cagcttaagc
660
ctgtgaagaa ggaaatactg agctagccag caaaagagag aaagaagagg aggggagagg
720

```

<210> 6170

<211> 101

<212> PRT

<213> Homo sapiens

<400> 6170

```

Met Met Gln Glu Ser Gly Thr Glu Thr Lys Ser Asn Gly Ser Ala Ile

```

```

      1           5           10           15
Gln Asn Gly Ser Gly Gly Ser Asn His Leu Leu Glu Cys Gly Gly Leu
      20           25           30
Arg Glu Gly Arg Ser Asn Gly Glu Thr Pro Ala Val Asp Ile Gly Ala
      35           40           45
Ala Asp Leu Ala His Ala Gln Gln Gln Gln Trp His Leu Ile
      50           55           60
Asn His Gln Pro Ser Arg Ser Pro Ser Ser Trp Leu Lys Arg Leu Ile
      65           70           75           80
Ser Ser Pro Trp Glu Leu Glu Val Leu Gln Val Pro Cys Gly Glu Gln
      85           90           95
Leu Leu Arg Arg Arg
      100

```

<210> 6171

<211> 1130

<212> DNA

<213> Homo sapiens

<400> 6171

```

nccccgctag gagttcctag taaagtggcg ggagccgcag ctatggagcc gcagaggagg
60
agagaaacgc aggttgctgc gtgggttaaaa aaaatatattg gagatcatcc tattccacag
120
tatgaggtga acccacggac cacagagatt ttacatcacc tttcagaacg caacaggggtc
180
cgggacaggg atgtctacct ggtaatatag gacttgaagc agaaagcaag tgaatacag
240
tcagaagcca agtatcttca agaccctctc atggagagtg tgaatttttc ccccgcgaat
300
ctctctagca ctggttccag gtatctgaat gctttggttg acagtgcggt ggcccttgaa
360
acaaaggata cctcgctagc tagttttatc cctgcagtga atgatttgac ctctgatctc
420
ttcgtacca aatccaaaag tgaagaaatc aagattgaac tgaaaaaact tgaaaaaaat
480
ttaactgcaa ctttagtatt agaaaaatgt ctacaagagg atgtcaagaa agcagagttg
540
catctgtcta cagaaagggc caaagttgat aatgctgctc agaacatgga ctttctaaaa
600
gcaaagtcag aggaattcag atttggaatc aaggctgcag aggagcaact ttcagccaga
660
ggcatggatg cttctctgtc tcacagtcac ttagtagcac tatcagagaa actggcaaga
720
ttaaggaac agactatacc tttgaagaaa aaattggagt cctattttaga cttaatgcog
780
aatccgtctc ttgctcaagt gaaaattgaa gaagcaaac gagaactaga tagcattgaa
840
gtcgaactta caagaagagt agacatgatg gaactgtgac aaaagccaaa taaacatcct
900
tttcctaacc aaagtaaatt gaataggact ttacagagtt ctttttctc ttggcatttc
960
ctaataacaa aactttctgt gttcttagat tacagaatat cataattgat agaatatggt
1020

```

ttcttactgt gtgttgcatt tttgtgcccc aatacatagt tttcatatta aaaagccttt
 1080
 tctcttaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa
 1130

<210> 6172
 <211> 292
 <212> PRT
 <213> Homo sapiens

<400> 6172
 Xaa Pro Leu Gly Val Pro Ser Lys Val Ala Gly Ala Ala Ala Met Glu
 1 5 10 15
 Pro Gln Glu Glu Arg Glu Thr Gln Val Ala Ala Trp Leu Lys Lys Ile
 20 25 30
 Phe Gly Asp His Pro Ile Pro Gln Tyr Glu Val Asn Pro Arg Thr Thr
 35 40 45
 Glu Ile Leu His His Leu Ser Glu Arg Asn Arg Val Arg Asp Arg Asp
 50 55 60
 Val Tyr Leu Val Ile Glu Asp Leu Lys Gln Lys Ala Ser Glu Tyr Glu
 65 70 75 80
 Ser Glu Ala Lys Tyr Leu Gln Asp Leu Leu Met Glu Ser Val Asn Phe
 85 90 95
 Ser Pro Ala Asn Leu Ser Ser Thr Gly Ser Arg Tyr Leu Asn Ala Leu
 100 105 110
 Val Asp Ser Ala Val Ala Leu Glu Thr Lys Asp Thr Ser Leu Ala Ser
 115 120 125
 Phe Ile Pro Ala Val Asn Asp Leu Thr Ser Asp Leu Phe Arg Thr Lys
 130 135 140
 Ser Lys Ser Glu Glu Ile Lys Ile Glu Leu Glu Lys Leu Glu Lys Asn
 145 150 155 160
 Leu Thr Ala Thr Leu Val Leu Glu Lys Cys Leu Gln Glu Asp Val Lys
 165 170 175
 Lys Ala Glu Leu His Leu Ser Thr Glu Arg Ala Lys Val Asp Asn Arg
 180 185 190
 Arg Gln Asn Met Asp Phe Leu Lys Ala Lys Ser Glu Glu Phe Arg Phe
 195 200 205
 Gly Ile Lys Ala Ala Glu Glu Gln Leu Ser Ala Arg Gly Met Asp Ala
 210 215 220
 Ser Leu Ser His Gln Ser Leu Val Ala Leu Ser Glu Lys Leu Ala Arg
 225 230 235 240
 Leu Lys Gln Gln Thr Ile Pro Leu Lys Lys Lys Leu Glu Ser Tyr Leu
 245 250 255
 Asp Leu Met Pro Asn Pro Ser Leu Ala Gln Val Lys Ile Glu Glu Ala
 260 265 270
 Lys Arg Glu Leu Asp Ser Ile Glu Ala Glu Leu Thr Arg Arg Val Asp
 275 280 285
 Met Met Glu Leu
 290

<210> 6173
 <211> 1483
 <212> DNA
 <213> Homo sapiens

<400> 6173
agagagagag actagtcttc tcttactcta ggcctttcgg tttagcgagac ggggcaggaa
60
agcgctgcgtg cggctaagag agtgggcgct ctgcggcgcc tgacgatgga agaactggag
120
caaggcctgt tgatgcagcc atgggcgtgg ctacagcttg cagagaactc cctcttgcc
180
aagggtttta tcaccaagca gggctatgcc ttgttggttt cagatcttca acaggtgtgg
240
catgaacagg tggacactag tgtggtcagc cagcgagcca aggagctgaa caagcggctc
300
actgtccttc ctgcagcttt cctctgtcat ttggataatc tccttcgccc attgttgaag
360
gacgctgctc accctagcga agctaccttc tcctgtgatt gtgtggcaga tgcactgatt
420
ctacgggtgc gaagtgcgt ctctggcctc ccttctatt ggaatttcca ctgcagtcta
480
gctagtcctt ccttggtctc ccaacatttg attcgtcctc tgatgggcat gagtctggca
540
ttacagtgcc aagtgagga gctagcaacg ttacttcata tgaaagacct agagatccaa
600
gactaccagg agagtggggc tacgctgatt cgagatcgat tgaagacaga accatttgaa
660
gaaaattcct tcttgaaca atttatgata gagaaactgc cagaggcatg cagcatttgt
720
gatggaaagc cctttgtcat gaatctgcag gatctgtata tggcagtcac cacacaagag
780
gtccaagtgg gacagaagca tcaaggcgct ggagatcctc atacctcaaa cagtgtcttc
840
ctgcaaggaa tcgatagcca atgtgtaaac cagccagaac aactggcttc ctacgcccc
900
accctctcag cactcgagaa agagtccagc ggtacttcag gccctctgca gagacctcag
960
ctgtcaaagg tcaagaggaa gaatccaagg ggtctcttca gttaactctgt tgtggcctca
1020
gctgctgagg atggacttgg agaatagctt ccaagcttca ccttgaaaga agcttcatg
1080
gcagcaatat ttctaaaata gtgatacagt cagaggcctc ctgtaagggc gagagaactg
1140
aagttgatgt tgacaggccc acagggaatt ggccttccct gttaagtgg aagccagtct
1200
ctgagaatcc cgtgctctcc tctcttttgg tggagggtct gtaggttcag gtttctacca
1260
tggacttttag gtatataggg caagtcagca agaaagcacc acactcag gaagccttgt
1320
ctacctttcc ctacgctctc tagccagcca gccccagata ctctcagag acccacttct
1380
ctcttttgca tggaaataaaa agcactcaca gtccttgctt ttgggattaa aaaaaaaa
1440
gaaaaaaaaa aaaaaaaaaa aaaaaaaaaa cctcatgcog aat
1483

<210> 6174

<211> 299

<212> PRT

<213> Homo sapiens

<400> 6174

```

Met Glu Glu Leu Glu Gln Gly Leu Leu Met Gln Pro Trp Ala Trp Leu
 1          5          10          15
Gln Leu Ala Glu Asn Ser Leu Leu Ala Lys Val Phe Ile Thr Lys Gln
 20          25          30
Gly Tyr Ala Leu Leu Val Ser Asp Leu Gln Gln Val Trp His Glu Gln
 35          40          45
Val Asp Thr Ser Val Val Ser Gln Arg Ala Lys Glu Leu Asn Lys Arg
 50          55          60
Leu Thr Ala Pro Pro Ala Ala Phe Leu Cys His Leu Asp Asn Leu Leu
 65          70          75          80
Arg Pro Leu Leu Lys Asp Ala Ala His Pro Ser Glu Ala Thr Phe Ser
 85          90          95
Cys Asp Cys Val Ala Asp Ala Leu Ile Leu Arg Val Arg Ser Glu Leu
100          105          110
Ser Gly Leu Pro Phe Tyr Trp Asn Phe His Cys Met Leu Ala Ser Pro
115          120          125
Ser Leu Val Ser Gln His Leu Ile Arg Pro Leu Met Gly Met Ser Leu
130          135          140
Ala Leu Gln Cys Gln Val Arg Glu Leu Ala Thr Leu Leu His Met Lys
145          150          155          160
Asp Leu Glu Ile Gln Asp Tyr Gln Glu Ser Gly Ala Thr Leu Ile Arg
165          170          175
Asp Arg Leu Lys Thr Glu Pro Phe Glu Glu Asn Ser Phe Leu Glu Gln
180          185          190
Phe Met Ile Glu Lys Leu Pro Glu Ala Cys Ser Ile Gly Asp Gly Lys
195          200          205
Pro Phe Val Met Asn Leu Gln Asp Leu Tyr Met Ala Val Thr Thr Gln
210          215          220
Glu Val Gln Val Gly Gln Lys His Gln Gly Ala Gly Asp Pro His Thr
225          230          235          240
Ser Asn Ser Ala Ser Leu Gln Gly Ile Asp Ser Gln Cys Val Asn Gln
245          250          255
Pro Glu Gln Leu Val Ser Ser Ala Pro Thr Leu Ser Ala Pro Glu Lys
260          265          270
Glu Ser Thr Gly Thr Ser Gly Pro Leu Gln Arg Pro Gln Leu Ser Lys
275          280          285
Val Lys Arg Lys Asn Pro Arg Gly Leu Phe Ser
290          295

```

<210> 6175

<211> 349

<212> DNA

<213> Homo sapiens

<400> 6175

```

acgcgttttgc cgggagatgc ggccgcttcg tcctctgcag ttaagaagct gggcgcgctog
60
aggactggga tttcaaatat gcgtgcatta gagaatgact ttttcaattc tcccacaaga
120

```

aaaactgttc agtttggtgg aactgtgaca gaagtcttgc tgaagtacaa aaagggtgaa
 180
 acaaatgact ttgagttgtt gaagaaccag ctgtagatc cagacataaa gagattgcct
 240
 tggttgaata gaagtcaaac agtagtgaa gagtatttgg cttttcttgg taatcttgta
 300
 tcagcacaga ctgttttctc cagaccgtgt ctcagcatga ttgcttccc
 349

<210> 6176
 <211> 90
 <212> PRT
 <213> Homo sapiens

<400> 6176
 Met Arg Ala Leu Glu Asn Asp Phe Phe Asn Ser Pro Pro Arg Lys Thr
 1 5 10 15
 Val Gln Phe Gly Gly Thr Val Thr Glu Val Leu Leu Lys Tyr Lys Lys
 20 25 30
 Gly Glu Thr Asn Asp Phe Glu Leu Leu Lys Asn Gln Leu Leu Asp Pro
 35 40 45
 Asp Ile Lys Arg Leu Pro Trp Leu Asn Arg Ser Gln Thr Val Val Glu
 50 55 60
 Glu Tyr Leu Ala Phe Leu Gly Asn Leu Val Ser Ala Gln Thr Val Phe
 65 70 75 80
 Leu Arg Pro Cys Leu Ser Met Ile Ala Ser
 85 90

<210> 6177
 <211> 1536
 <212> DNA
 <213> Homo sapiens

<400> 6177
 cggcccaacc atggcgctct ccggcgccgg ctgctggtg atcgttggca gaattaaaac
 60
 tctgtacca ttgaacaaca gctgctcatt tccccagcc ccagccctg gcattccccc
 120
 tcttagcttt ctgtctctat gggtagctca gtggagtcat tgggcgaatg ggccatgctg
 180
 ttgcccagtg gaggtctcca ggtgaaactc tatgacattg agcaacagca gataaggaa
 240
 gccttggaac acatcagaaa ggagatgaag ttgctggagc aggcagggtc tctgaaaggc
 300
 tccttagtg tggaagagca gctgtcactc atcagtgtgt gtcccaatat ccaagaagca
 360
 gtagagggtg coatgcacat tcaggaaatg gttccagaag atctagaact gaagaagaag
 420
 atttttgcct agtttagatt catcattgat gatcgagtga tcttaagcag ttccattctc
 480
 tgtctcatgc ctccaagtt gtttctgtgc ttggtccatg tgaagcaatg catcgtggct
 540
 catcctgtga atccgcoata ctacatcccc ctggttgagc tgggtcccca cccggagagc
 600

gccctacga cagtgagacag aaccacgcc ctgatgaaga agattgganc agtgcgccat
 660
 gcgagtcacg aaggaggtgg ccggcttcgt tctgaaccgc ctgcaatatg caatcatcag
 720
 cgaggccctgg cggctagtgg aggaaggaat ncgtgtctcc tagtgacctg gnaccttgtc
 780
 atgtcagaag ggttgggcat gcggtatgca ttcattggac ccctggaaac catgcatctc
 840
 aatgcagaag gtatgttaag ctactgcgac agatacagcg aaggcataaa acatgtccta
 900
 cagacttttg gaccatttcc agagttttcc agggccactg ctgagaaggt taaccaggac
 960
 atgtgcatag aggtccctga tgaccggag cacttagctg ccaggaggca gtggaggggac
 1020
 gagtgcctca tgagactcgc caagttgaag agtcaagtgc agccccagtg aatttcttgt
 1080
 aatgcagctt ccactcctct cattggaggc cctatttggg aacactgcaa gcccttaatc
 1140
 agccctctgt gacataggta gcgccccagc gagatcctaa gctggctgtc ttgtgtgcag
 1200
 cctgagtggtg gtgtgtcagg ccggtagtct gcccgctact ttggatcata gccctggggc
 1260
 tggcggcaca gcagcacttg cgttctcggg gctgtcgatt tcttgccacc tgggcagata
 1320
 acctggagat ttccaccttt tcttttcagc ttgattgcac ttgactatat ttacagcca
 1380
 gtgattgtag tttcatgtta atatgtggca aaatattttt gtaattattt tctaaccctt
 1440
 ttctgagtac tctggggccc tgcatttatg aggcacctac cttcattttg ctaacgctta
 1500
 ttctgaataa aagtttttga ttccttaaaa aaaaaa
 1536

<210> 6178

<211> 310

<212> PRT

<213> Homo sapiens

<400> 6178

Met	Gly	Thr	Ser	Val	Glu	Ser	Leu	Gly	Glu	Trp	Ala	Met	Leu	Phe	Ala
1				5					10					15	
Ser	Gly	Gly	Phe	Gln	Val	Lys	Leu	Tyr	Asp	Ile	Glu	Gln	Gln	Gln	Ile
			20					25					30		
Arg	Asn	Ala	Leu	Glu	Asn	Ile	Arg	Lys	Glu	Met	Lys	Leu	Leu	Glu	Gln
		35				40					45				
Ala	Gly	Ser	Leu	Lys	Gly	Ser	Leu	Ser	Val	Glu	Glu	Gln	Leu	Ser	Leu
		50				55					60				
Ile	Ser	Gly	Cys	Pro	Asn	Ile	Gln	Glu	Ala	Val	Glu	Gly	Ala	Met	His
			65			70				75				80	
Ile	Gln	Glu	Cys	Val	Pro	Glu	Asp	Leu	Glu	Leu	Lys	Lys	Lys	Ile	Phe
			85					90						95	
Ala	Gln	Leu	Asp	Ser	Ile	Ile	Asp	Asp	Arg	Val	Ile	Leu	Ser	Ser	Ser
			100					105					110		
Thr	Ser	Cys	Leu	Met	Pro	Ser	Lys	Leu	Phe	Ala	Gly	Leu	Val	His	Val

115	120	125
Lys Gln Cys Ile Val Ala His Pro Val Asn Pro Pro Tyr Tyr Ile Pro		
130	135	140
Leu Val Glu Leu Val Pro His Pro Glu Thr Ala Pro Thr Thr Val Asp		
145	150	155
Arg Thr His Ala Leu Met Lys Lys Ile Gly Xaa Val Pro His Ala Ser		
165	170	175
Pro Glu Gly Gly Gly Arg Leu Arg Ser Glu Pro Pro Ala Ile Cys Asn		
180	185	190
His Gln Arg Gly Leu Ala Ala Ser Gly Gly Arg Asn Xaa Cys Leu Leu		
195	200	205
Val Thr Trp Xaa Leu Val Met Ser Glu Gly Leu Gly Met Arg Tyr Ala		
210	215	220
Phe Ile Gly Pro Leu Glu Thr Met His Leu Asn Ala Glu Gly Met Leu		
225	230	235
Ser Tyr Cys Asp Arg Tyr Ser Glu Gly Ile Lys His Val Leu Gln Thr		
245	250	255
Phe Gly Pro Ile Pro Glu Phe Ser Arg Ala Thr Ala Glu Lys Val Asn		
260	265	270
Gln Asp Met Cys Met Lys Val Pro Asp Asp Pro Glu His Leu Ala Ala		
275	280	285
Arg Arg Gln Trp Arg Asp Glu Cys Leu Met Arg Leu Ala Lys Leu Lys		
290	295	300
Ser Gln Val Gln Pro Gln		
305	310	

<210> 6179

<211> 2940

<212> DNA

<213> Homo sapiens

<400> 6179

```

nnctgcagggt ggocggggag gctacgcgcg gggcgggtgc tgcttgctgc aggtctctggg
60
gagtcgccat gcctacaaca cagcagtcctc ctcaggatga gcaggaaaag ctctctggatg
120
aagccatata ggctgtgaag gtccagtcct tccaaatgaa gagatgcctg gacaaaaaca
180
agcttatgga tgctctaaaa catgcttcta atatgcttgg tgaactccgg acttctatgt
240
tatcaccaaa gagttactat gaactttata tggccatttc tgatgaactg cactacttgg
300
aggntctacc tgacagatga gtttgctaaa ggaaggaaa gggcagatct ctacgaactt
360
gtacagtatg ctggaacat tatoccaaagg ctttaccttt tgatcacagt tggagtgtga
420
tatgtcaagt catttctca gtccaggaag gatattttga aagatttggt agaaatgtgc
480
cgtgggtgtg aacatccctt gaggggtctg tttcttcgaa attaccttct tcagtgatcc
540
agaaatatct tacctgatga aggagagcca acagatgaag aaacaactgg tgacatcagt
600
gattccatgg attttgtact gctcaacttt gcagaaatga acaagctctg ggtgcgaatg
660

```

cagcatcagg gacatagccg agatagagaa aaaagagaac gagaagaca agaactgaga
720
attttagtgg gaacaaattt ggtgcgcctc agtnncagtt ggaggtgtaa atgtggaacg
780
ttacaacaga ttgttttgac tggcatattg gagcaagttg taaactgtag ggatgctttg
840
gctcaagaat atctcatgga gtgtattatt caggttttcc ctgatgaatt tcacctccag
900
actttgaatc cttttcttcg ggctgtgct gagttacacc agaatgtaa tgtgaagaac
960
ataatcattg ctttaattga tagattagct ttatttgctc accgtgaaga tggacctgga
1020
atcccagcgg atattaaact ttttgatata ttttcacagc aggtggctac agtgatacag
1080
tctagacaag acatgccttc agaggatggt gtatctttac aagtctctct gattaatctt
1140
gccatgaaat gttaccctga tctgtggac tatgttgata aagttctaga aacaacagtg
1200
gagatattca ataaagctcaa cttgaacat attgctacca gtagtgcagt ttcaaaggaa
1260
ctcaccagac ttttgaaaat accagttgac acttacaaca atattttaac agtcttgaaa
1320
ttaaaacatt ttcaccact ctttgagtac ttgactacg agtccagaaa gagcatgagt
1380
tgtttatgtc tttagtaagt tctggattat aacacagaaa ttgtctctca agaccagggtg
1440
gattccataa tgaatttggg atccacgttg attcaagatc agccagatca acctgtagaa
1500
gacctgac cagaagattt tgctgatgag cagagccttg tgggcccgtt cattcatctg
1560
ctgcgctctg aggacctga ccagcagtac ttgattttga acacagcacg aaaaattttt
1620
ggagctgggt gaaatcagcg gattcgcttc acactgccac ctttgggtatt tgcagcttac
1680
cagctggcct ttcgatataa agagaattct aagtggatga caaatgggaa aagaatggcc
1740
agaagatttt ttcatttgcc cnaccagact atcagtgctt tgatcaaaag agagctggca
1800
gaattgccct taagactttt tcttcaagga gcactagctg ctggggaaat tggttttgaa
1860
aatcatgaga cagtgcata tgaattcatg tcccaggcat tttctctgta tgaagatgaa
1920
atcagcgatt ccaaagcaca gctagctgcc atcaccttga tcattggcac ttttgaagg
1980
atgaagtgtc tcagtgaaga gaatcatgaa cctctgagga ctcagtgctc ccttgctgca
2040
tccaaacttc taaagaaacc tgatcagggc cgagctgagc acctgtgcac atctctttgg
2100
tctggcgaaa acacggacaa aaatggggag gagcttcacg gaggcaagag ggtaattggag
2160
tgcttaaaaa aagctctaaa aatagcaaat cagtgcattg acccctctct acaagtgcag
2220
ctttttatag aaattctgaa cagatatatc ttttttatg aaaaggaaaa tgatgcggta
2280

acaattcagg ttttaaacca gcttatccaa aagattcgag aagacctccc gaattctgaa
 2340
 tccagtgaag aaacagagca gattaacaaa cattttcata acacactgga gcattttgcgc
 2400
 ttgcggcggg aatcaccaga atccgagggg ccaatttatg aagggtctcat cctttaaaaa
 2460
 ggaaatatgct caccatactc ctttccatgt acatccagtg agggttttat tacgctaggt
 2520
 ttcccttcca tagattgtgc ctttcagaaa tgetgaggta ggtttcccat ttcttacctg
 2580
 tgatgtgttt tacccagcac ctccggacac tcaccttcag gaccttaata aaattattca
 2640
 cttggtaagt gttcaagtct ttctgatcac cccaagtagc atgactgatc tgcaattttt
 2700
 agagcttttt ttaggcactc cattaccctc ttgcctccgt gaagctctc cccatttttg
 2760
 tccgtgtttc tgccagacca gaagagatgt gcacagggtc tcacagctcg gccctgatca
 2820
 ggtttcttta gaagtttgga tgcagcaagg gcacactgag tcctcagagg ttcatgatcc
 2880
 tcttactga agcacttcat cctttcaaaa gtgccaatga tcaaggtgat ggcagctagc
 2940

<210> 6180

<211> 751

<212> PRT

<213> Homo sapiens

<400> 6180

Met	Leu	Leu	Ile	Cys	Leu	Val	Asn	Ser	Gly	Leu	Leu	Cys	Tyr	His	Gln
1				5					10					15	
Arg	Val	Thr	Met	Asn	Phe	Ile	Trp	Pro	Phe	Leu	Met	Asn	Cys	Thr	Thr
			20					25				30			
Trp	Arg	Xaa	Tyr	Leu	Thr	Asp	Glu	Phe	Ala	Lys	Gly	Arg	Lys	Val	Ala
		35				40					45				
Asp	Leu	Tyr	Glu	Leu	Val	Gln	Tyr	Ala	Gly	Asn	Ile	Ile	Pro	Arg	Leu
		50				55				60					
Tyr	Leu	Leu	Ile	Thr	Val	Gly	Val	Val	Tyr	Val	Lys	Ser	Phe	Pro	Gln
65				70				75					80		
Ser	Arg	Lys	Asp	Ile	Leu	Lys	Asp	Leu	Val	Glu	Met	Cys	Arg	Gly	Val
			85					90					95		
Gln	His	Pro	Leu	Arg	Gly	Leu	Phe	Leu	Arg	Asn	Tyr	Leu	Leu	Gln	Cys
			100					105					110		
Thr	Arg	Asn	Ile	Leu	Pro	Asp	Glu	Gly	Glu	Pro	Thr	Asp	Glu	Glu	Thr
		115				120						125			
Thr	Gly	Asp	Ile	Ser	Asp	Ser	Met	Asp	Phe	Val	Leu	Leu	Asn	Phe	Ala
		130				135					140				
Glu	Met	Asn	Lys	Leu	Trp	Val	Arg	Met	Gln	His	Gln	Gly	His	Ser	Arg
145				150					155						160
Asp	Arg	Glu	Lys	Arg	Glu	Arg	Glu	Arg	Gln	Glu	Leu	Arg	Ile	Leu	Val
			165					170					175		
Gly	Thr	Asn	Leu	Val	Arg	Leu	Ser	Xaa	Ser	Trp	Arg	Cys	Lys	Cys	Gly
			180					185					190		
Thr	Leu	Gln	Gln	Ile	Val	Leu	Thr	Gly	Ile	Leu	Glu	Gln	Val	Val	Asn

195	200	205
Cys Arg Asp Ala Leu Ala	Gln Glu Tyr Leu Met Glu Cys Ile Ile Gln	
210	215	220
Val Phe Pro Asp Glu Phe His	Leu Gln Thr Leu Asn Pro Phe Leu Arg	
225	230	235
Ala Cys Ala Glu Leu His	Gln Asn Val Asn Val Lys Asn Ile Ile Ile	
245	250	255
Ala Leu Ile Asp Arg Leu Ala Leu Phe Ala His	Arg Glu Asp Gly Pro	
260	265	270
Gly Ile Pro Ala Asp Ile Lys Leu Phe Asp Ile Phe Ser	Gln Gln Val	
275	280	285
Ala Thr Val Ile Gln Ser Arg Gln Asp Met Pro Ser Glu Asp Val Val		
290	295	300
Ser Leu Gln Val Ser Leu Ile Asn Leu Ala Met Lys Cys Tyr Pro Asp		
305	310	315
Arg Val Asp Tyr Val Asp Lys Val Leu Glu Thr Thr Val Glu Ile Phe		
325	330	335
Asn Lys Leu Asn Leu Glu His Ile Ala Thr Ser Ser Ala Val Ser Lys		
340	345	350
Glu Leu Thr Arg Leu Leu Lys Ile Pro Val Asp Thr Tyr Asn Asn Ile		
355	360	365
Leu Thr Val Leu Lys Leu Lys His Phe His Pro Leu Phe Glu Tyr Phe		
370	375	380
Asp Tyr Glu Ser Arg Lys Ser Met Ser Cys Tyr Val Leu Ser Asn Val		
385	390	395
Leu Asp Tyr Asn Thr Glu Ile Val Ser Gln Asp Gln Val Asp Ser Ile		
405	410	415
Met Asn Leu Val Ser Thr Leu Ile Gln Asp Gln Pro Asp Gln Pro Val		
420	425	430
Glu Asp Pro Asp Pro Glu Asp Phe Ala Asp Glu Gln Ser Leu Val Gly		
435	440	445
Arg Phe Ile His Leu Leu Arg Ser Glu Asp Pro Asp Gln Gln Tyr Leu		
450	455	460
Ile Leu Asn Thr Ala Arg Lys His Phe Gly Ala Gly Gly Asn Gln Arg		
465	470	475
Ile Arg Phe Thr Leu Pro Pro Leu Val Phe Ala Ala Tyr Gln Leu Ala		
485	490	495
Phe Arg Tyr Lys Glu Asn Ser Lys Trp Met Thr Asn Gly Lys Arg Asn		
500	505	510
Ala Arg Arg Phe Phe His Leu Pro Xaa Gln Thr Ile Ser Ala Leu Ile		
515	520	525
Lys Ala Glu Leu Ala Glu Leu Pro Leu Arg Leu Phe Leu Gln Gly Ala		
530	535	540
Leu Ala Ala Gly Glu Ile Gly Phe Glu Asn His Glu Thr Val Ala Tyr		
545	550	555
Glu Phe Met Ser Gln Ala Phe Ser Leu Tyr Glu Asp Glu Ile Ser Asp		
565	570	575
Ser Lys Ala Gln Leu Ala Ala Ile Thr Leu Ile Ile Gly Thr Phe Glu		
580	585	590
Arg Met Lys Cys Phe Ser Glu Glu Asn His Glu Pro Leu Arg Thr Gln		
595	600	605
Cys Ala Leu Ala Ala Ser Lys Leu Leu Lys Lys Pro Asp Gln Gly Arg		
610	615	620
Ala Glu His Leu Cys Thr Ser Leu Trp Ser Gly Arg Asn Thr Asp Lys		

625		630		635		640
Asn Gly Glu Glu Leu	His Gly Gly Lys Arg Val Met Glu Cys Leu Lys					
	645		650		655	
Lys Ala Leu Lys Ile Ala Asn Gln Cys Met Asp Pro Ser Leu Gln Val						
	660		665		670	
Gln Leu Phe Ile Glu Ile Leu Asn Arg Tyr Ile Tyr Phe Tyr Glu Lys						
	675		680		685	
Glu Asn Asp Ala Val Thr Ile Gln Val Leu Asn Gln Leu Ile Gln Lys						
	690		695		700	
Ile Arg Glu Asp Leu Pro Asn Leu Glu Ser Ser Glu Glu Thr Glu Gln						
	705		710		715	
Ile Asn Lys His Phe His Asn Thr Leu Glu His Leu Arg Leu Arg Arg						
	725		730		735	
Glu Ser Pro Glu Ser Glu Gly Pro Ile Tyr Glu Gly Leu Ile Leu						
	740		745		750	

<210> 6181
 <211> 1135
 <212> DNA
 <213> Homo sapiens

<400> 6181
 gccacagcgt actcctgggtc cggcatgggc cgcattccaca agggcatccg cgagcagggc
 60
 cggtagcttca acagccggcc ctccatccag aagcccagag tcttcttctt gcccgacctg
 120
 ccaccaccgc cctattttct ccgggacgca cagaacatg atgtggaagt gctggaacgg
 180
 aaattccaga ccatcctgtg tgagtgttag accctctaca aagctttctc aaactgcagc
 240
 ctcccgcgaag gatggaaaat gaacagcacc ccagcgggg agtgggttcac cttttacttg
 300
 gtcaatcagg gggtttgtgt tccaggaaac tgtaggaagt gccacggac gtaccgcttg
 360
 ctcggaagcc ttcggacctg tattgggaac aatgtttttg ggaacgcgtg catctctgtg
 420
 ctgagccctg ggactgtgat aacggagcac tatggaccac ccaacatccg catccgatgc
 480
 catttaggtc tgaaaactcc aaatggctgt gagctgggtg tggggggaga gccccagtgc
 540
 tgggcagaag ggcgctgcct tctctttgat gactcttttc tgcattgtgc gtccatgaa
 600
 gggttcagag aggatggccc acgggtgggt ttcatgggtg atttgtggca tccaaacgtc
 660
 gcagcggcgg aacggcaggc tcttgatttc atctttgtgc cgggacgatg agagtatttc
 720
 ccattgctga gtcggcgaga agggccgagg cggggcctgg gcagactgtg gtccggtcca
 780
 gtccctaccg gtgtgttttc catgctcaga aacctgcctc agcggaaagc tcttattttg
 840
 gattttatat catgtcgggt cctcttttcc ctgtgttatt gtaaatggaa acttttcggc
 900
 ttgtatttcc ttagattttt ttttttttct tccaatcatt tgcctcagag actcctttct
 960

ggcctaacag cgcattcctt tgattgggtc ttgagtgtacc agagacttag tgcccttgta
 1020
 agtctgtctt ctgtgtctac ttgtttttt cagtgtctctg aaatagagta actaaatggt
 1080
 tatttgtctg aatataataa tgtaaaactt cttgtgggtca tcttaaaaaa aaaaa
 1135

<210> 6182

<211> 236

<212> PRT

<213> Homo sapiens

<400> 6182

Ala	Lys	Arg	Tyr	Ser	Trp	Ser	Gly	Met	Gly	Arg	Ile	His	Lys	Gly	Ile
1				5					10					15	
Arg	Glu	Gln	Gly	Arg	Tyr	Leu	Asn	Ser	Arg	Pro	Ser	Ile	Gln	Lys	Pro
		20						25					30		
Glu	Val	Phe	Phe	Leu	Pro	Asp	Leu	Pro	Thr	Thr	Pro	Tyr	Phe	Ser	Arg
		35					40					45			
Asp	Ala	Gln	Lys	His	Asp	Val	Glu	Val	Leu	Glu	Arg	Asn	Phe	Gln	Thr
		50				55					60				
Ile	Leu	Cys	Glu	Phe	Glu	Thr	Leu	Tyr	Lys	Ala	Phe	Ser	Asn	Cys	Ser
65					70					75				80	
Leu	Pro	Gln	Gly	Trp	Lys	Met	Asn	Ser	Thr	Pro	Ser	Gly	Glu	Trp	Phe
				85					90					95	
Thr	Phe	Tyr	Leu	Val	Asn	Gln	Gly	Val	Cys	Val	Pro	Arg	Asn	Cys	Arg
			100				105						110		
Lys	Cys	Pro	Arg	Thr	Tyr	Arg	Leu	Leu	Gly	Ser	Leu	Arg	Thr	Cys	Ile
			115				120						125		
Gly	Asn	Asn	Val	Phe	Gly	Asn	Ala	Cys	Ile	Ser	Val	Leu	Ser	Pro	Gly
			130			135					140				
Thr	Val	Ile	Thr	Glu	His	Tyr	Gly	Pro	Thr	Asn	Ile	Arg	Ile	Arg	Cys
145					150					155				160	
His	Leu	Gly	Leu	Lys	Thr	Pro	Asn	Gly	Cys	Glu	Leu	Val	Val	Gly	Gly
				165						170				175	
Glu	Pro	Gln	Cys	Trp	Ala	Glu	Gly	Arg	Cys	Leu	Leu	Phe	Asp	Asp	Ser
			180					185					190		
Phe	Leu	His	Ala	Ala	Phe	His	Glu	Gly	Ser	Ala	Glu	Asp	Gly	Pro	Arg
			195				200					205			
Val	Val	Phe	Met	Val	Asp	Leu	Trp	His	Pro	Asn	Val	Ala	Ala	Ala	Glu
			210			215					220				
Arg	Gln	Ala	Leu	Asp	Phe	Ile	Phe	Ala	Pro	Gly	Arg				
225					230					235					

<210> 6183

<211> 2530

<212> DNA

<213> Homo sapiens

<400> 6183

acgcgtcggt cggtggggcg ttgagcaagt ggcaccccg agtcatttgg gctgggggtg
 60
 gaggattagc atctgccatt gactgcatt aaagggccca cgtctctcgc tgagagggtg
 120

aggttgtgtt gcgggggtcg ggtagctgta ggtcttagaa atggcatcaa aggtggcctt
180
ggcgaagtgtg ccaggggtgg cagtgcagcc cggggctgag gtgtagcagt catogatacc
240
agccatcatg agcagcttct taggcacagg tgcggagacg atgccagtgc ccctgggtgc
300
agggatgagg cgtaccagca cagagccgca gcggcctgtc acctgggtg ggaagagatc
360
aggagacggg ggcccagggg agcctgcccc acggcaggcc catcacctgc caccagccta
420
ccttgcaagg gacagtgtgg ggcttgccga tcttgttccc ccagtagcct ctgcgcacgg
480
ggacgatgga gagcttgccc aggatgatgg cccacaggat ggcggtggcc acctccttgg
540
agcacttaac acccagaccg acgtggccat ttagtctccc gatagcaaca aatgccttga
600
acctgggtgc ctggccggca cgggtctgct tctgcactgg cataatcttc aaacctcat
660
ccttgagaga gggccccagg aaaaagtcga tgatctctga ttccttaatg ggcagagaga
720
agagatagat ctctccagg gacttgatct tcatgtcctt gaccaagcgg cccaacttgg
780
tgacgggcat ccaactctta tctccggcct tgcctccggg agctccggg cctcgccccc
840
ggccccgtcc acggcccgga ccccgccctt ggtggccctg ggatggggaa ccgcggtggc
900
ttccgcgag gtttcggcag tggcatccgg ggcgggggtc gcggccgtgg acggggccgg
960
ggccgaggcc gcggagctcg cggaggcaag gccagggata aggagtggat gcccgctacc
1020
aagtgtggcc gcttgggtcaa ggacatgaag atcaagtccc tggaggagat ctatctcttc
1080
tccttgccca ttaaggaatc agagatcatt gatttcttcc tgggggcctc tctcaaggat
1140
gaggttttga agattatgcc agtgcagaag cagaccctgt ccggccagcg caccaggttc
1200
aaggcatttg ttgctatcgg ggactacaat ggccacgtcg gtctgggtgt taagtgtccc
1260
aaggagggtg ccaccgccat ccgtggggcc atcatcctgg ccaagctctc catcgtcccc
1320
gtgcgcagag gctactgggg gaacaagatc ggcaagcccc aactgtccc ttgcaagggtg
1380
acaggccgct gcggctctgt gctggtacgc ctcatccctg caccagggg cactggcatc
1440
gtctccgcac ctgtgcctaa gaagctgtc atgatggctg gtatcgatga ctgtacaccc
1500
tcagcccggt gctgcactgc caccctgggc aacttcgcca aggccacctt tgatgccatt
1560
tctaagacct acagctacct gacccccgac ctctggaagg agactgtatt caccaagtct
1620
ccctatcagg agttcactga ccacctgtc aagaccaca ccagagtctc cgtgcagcgg
1680
actcaggctc cagctgtggc tacaacatag ggtttttata caagaaaaat aaagtgaatt
1740

aagctgtcac ccacccatgg agaaaagagt cttttggttc tttttaacat aagtgattag
 1800
 ttttaagagta tgctgaggag cccactgggct taaagaagga tgtaaataag acccaaatac
 1860
 ataggggacca ggcgctgctt tctcatgttc aaaaaagcag tctccacca ctgaactcca
 1920
 ttctctcagg gggctcaatg aaggctaacc aatccgatgc atgtgtaggc aacagtccca
 1980
 tggcatggca cttgtaaaca gccaatgcca aaccatcag gtcccaatg agatagacca
 2040
 aaccctgaag aaacttctgg ctggaacttt ctaacatctt gaaagtggc gaaatggcca
 2100
 taagtgcctg aatgggtcgc caggccatca tacacacat catagtaggg aagatggaga
 2160
 tagtattgcc tgccatgtac atgatgaaga gattcatggg aatctgtttg aggggaccca
 2220
 aggcgatgac ccagcagcgc ttctccacca ggatccggtc tgtctcttgc acgctggtat
 2280
 caggcaactg cttgtccaag taaccgactg ggtagagcga gtctccctgg ccaactgcccc
 2340
 ggtcaacttg acccctgctg cctcctccag gcccgcttag ctcaatggcc cacttgaagc
 2400
 gccggcctcg gttagccacc agggccccct gggccgctcat ggcaacagct gcgtcctata
 2460
 gcctcgatgc ttctcagtc aaagcgtact ccacaacagg ccaccagcg ttctccgctt
 2520
 tgtctcacc
 2530

<210> 6184

<211> 308

<212> PRT

<213> Homo sapiens

<400> 6184

Arg	Ala	Ser	Thr	Pro	Tyr	Leu	Arg	Pro	Cys	Leu	Arg	Glu	Leu	Arg	Gly
1				5				10				15			
Leu	Gly	Pro	Gly	Pro	Val	His	Gly	Arg	Asp	Pro	Gly	Pro	Gly	Gly	Pro
		20						25				30			
Gly	Met	Gly	Asn	Arg	Gly	Gly	Phe	Arg	Gly	Gly	Phe	Gly	Ser	Gly	Ile
		35					40				45				
Arg	Gly	Arg	Gly	Arg	Gly	Arg	Gly	Arg	Gly	Arg	Gly	Arg	Gly	Arg	Gly
		50				55				60					
Ala	Arg	Gly	Gly	Lys	Ala	Glu	Asp	Lys	Glu	Trp	Met	Pro	Val	Thr	Lys
65				70					75						80
Leu	Gly	Arg	Leu	Val	Lys	Asp	Met	Lys	Ile	Lys	Ser	Leu	Glu	Gly	Ile
			85						90					95	
Tyr	Leu	Phe	Ser	Leu	Pro	Ile	Lys	Glu	Ser	Glu	Ile	Ile	Asp	Phe	Phe
			100				105						110		
Leu	Gly	Ala	Ser	Leu	Lys	Asp	Glu	Val	Leu	Lys	Ile	Met	Pro	Val	Gln
		115					120					125			
Lys	Gln	Thr	Arg	Ala	Gly	Gln	Arg	Thr	Arg	Phe	Lys	Ala	Phe	Val	Ala
		130					135					140			
Ile	Gly	Asp	Tyr	Asn	Gly	His	Val	Gly	Leu	Gly	Val	Lys	Cys	Ser	Lys


```

145             150             155             160
Glu Val Ala Thr Ala Ile Arg Gly Ala Ile Ile Leu Ala Lys Leu Ser
165             170             175
Ile Val Pro Val Arg Arg Gly Tyr Trp Gly Asn Lys Ile Gly Lys Pro
180             185             190
His Thr Val Pro Cys Lys Val Thr Gly Arg Cys Gly Ser Val Leu Val
195             200             205
Arg Leu Ile Pro Ala Pro Arg Gly Thr Gly Ile Val Ser Ala Pro Val
210             215             220
Pro Lys Lys Leu Leu Met Met Ala Gly Ile Asp Asp Cys Tyr Thr Ser
225             230             235
Ala Arg Gly Cys Thr Ala Thr Leu Gly Asn Phe Ala Lys Ala Thr Phe
245             250             255
Asp Ala Ile Ser Lys Thr Tyr Ser Tyr Leu Thr Pro Asp Leu Trp Lys
260             265             270
Glu Thr Val Phe Thr Lys Ser Pro Tyr Gln Glu Phe Thr Asp His Leu
275             280             285
Val Lys Thr His Thr Arg Val Ser Val Gln Arg Thr Gln Ala Pro Ala
290             295             300
Val Ala Thr Thr
305

```

<210> 6185

<211> 1231

<212> DNA

<213> Homo sapiens

<400> 6185

```

cacagcttgt tcttaggaag ggcttagcaa acgggggttg ttgtccttct tggaagccac
60
atttgtttgc ctggtgagtg gtggagggca ctgctaggcc tgctagggct gacacggcca
120
gagtcagatg acctcatctc acatccagca ggtgaaatgc agtcctttgat cccttgaaac
180
ccaccctcta ggaccaaggt cactgcagta ttggatagga cctcaggagg ttagcagggg
240
gctcatggtt aagagtgtga actacagctt agacctacag ggtccctcgc ccagctcttc
300
cacaacccag ctgtgcaacc ctagacaagt gagttaatgt ccttgggcct cagttctctc
360
ttagtaaaat gtgtgtagcc atagagggct gttatgagga ttcagtcaaa tgacacatga
420
tgtcttgggc acacctggcg tggattatgg cgcctgtagg agcaggaggg ctctcctggag
480
gaggggggcta gttgaacaga gtctagaaag tatagattgg gaagagcact ctggagggca
540
ggatcaccat gtgcaaaggc tcagagaatg ccccccacta cctcctggaa atcaaggggga
600
ttctgtgtgt ccaagggcat tgggtgtctc taggcccccg acctgtgtct gggaggtgtc
660
aaggggaagc cagatccgag gccacactt gcattgtttc aggtgaggtc cagagatata
720
tccagagagg agtggaaggg ctggagacc tacagcccca atactgcata tgggtgtggac
780

```

ttcctgggtgc ccgtgatggg ctatatctgc cgcctctgcc acaagttcta tcacagcaac
 840
 tcaggggcac agctctccca ctgcaagtc ctggggccact ttgagaacct gcagaaatac
 900
 aaggcgccca agaaccaccg cccaccacc cgcacctgtga gccgccgggtg cgcaatcaac
 960
 gcccggaacg ctttgacagc cctgttcacc tccagcggcc gccaccctc ccagcccaac
 1020
 acccaggaca aaacaccag caaggtgacg gctcgacct cccagcccc actacctggg
 1080
 cgctcaaccc gctcaaac ctgatagagg gacctccctg tccctggcct gcctgggtcc
 1140
 agatctgcta atgcttttta ggagctctgcc tggaaacttt gacatggctc atgtttttac
 1200
 tcaaaatcca ataaacaag gtaagtttgg c
 1231

<210> 6186

<211> 133

<212> PRT

<213> Homo sapiens

<400> 6186

Val	Arg	Ser	Arg	Asp	Ile	Ser	Arg	Glu	Glu	Trp	Lys	Gly	Ser	Glu	Thr
1				5					10					15	
Tyr	Ser	Pro	Asn	Thr	Ala	Tyr	Gly	Val	Asp	Phe	Leu	Val	Pro	Val	Met
			20					25					30		
Gly	Tyr	Ile	Cys	Arg	Ile	Cys	His	Lys	Phe	Tyr	His	Ser	Asn	Ser	Gly
		35					40				45				
Ala	Gln	Leu	Ser	His	Cys	Lys	Ser	Leu	Gly	His	Phe	Glu	Asn	Leu	Gln
	50					55				60					
Lys	Tyr	Lys	Ala	Ala	Lys	Asn	Pro	Ser	Pro	Thr	Arg	Pro	Val	Ser	
65					70				75				80		
Arg	Arg	Cys	Ala	Ile	Asn	Ala	Arg	Asn	Ala	Leu	Thr	Ala	Leu	Phe	Thr
			85					90					95		
Ser	Ser	Gly	Arg	Pro	Pro	Ser	Gln	Pro	Asn	Thr	Gln	Asp	Lys	Thr	Pro
		100					105					110			
Ser	Lys	Val	Thr	Ala	Arg	Pro	Ser	Gln	Pro	Pro	Leu	Pro	Arg	Arg	Ser
		115					120					125			
Thr	Arg	Leu	Lys	Thr											
		130													

<210> 6187

<211> 909

<212> DNA

<213> Homo sapiens

<400> 6187

nagtctctccc aaagtacttg tgtccgggtg gtggactgga ttcgctgcgg agccctggaa
 60
 gctgccttctt cttctccctg tgcttaacca gaggtgccca tgggttgagc aatgagggtg
 120
 gtcacagcag cactgttact ggggtctcatg atgggtgtca ctggagacga ggtagagaa
 180

agcccggtgtg cccatgaggc cctcttggac gaggacaccc tcttttgcca ggsccttgaa
 240
 gttttctacc cagagtggg gaacattggc tgcaaggttg ttcctgattg taacaactac
 300
 agacagaaga tcacctcctg gatggagcgc atagtcaagt tccccggggc cgtgtacggc
 360
 gcaacctata tcttgggtgat ggtggatcca gatgccccta gcagagcaga acccagacag
 420
 agattctgga gacattggct ggtaacagat atcaagggcg ccgacctgaa gaaagggag
 480
 attcagggcc aggagttatc agcctaccag gctccctccc caccggcaca cagtggcttc
 540
 catcgctacc agttctttgt ctatcttcag gaaggaaaag tcattctctc ccttcccaag
 600
 gaaaacaaaa ctcgaggctc ttggaaaatg gacagatttc tgaaccgttt ccacttgggc
 660
 gaactgaag caagcaccca gttcatgacc cagaactacc aggactcacc aacctccag
 720
 gctcccagag aaagggccag cgagcccaag cacaaaaacc aggcggagat agctgctg
 780
 tagatagccg gctttgcat cggggcatgt ggccaccactg cccaccaccg acgatgtggg
 840
 tatggaaccc cctctggata cagaacccct tcttttccaa attaaaaaaa aaatcatcc
 900
 agggcaaaa
 909

<210> 6188

<211> 227

<212> PRT

<213> Homo sapiens

<400> 6188

Met Gly Trp Thr Met Arg Leu Val Thr Ala Ala Leu Leu Leu Gly Leu
 1 5 10 15
 Met Met Val Val Thr Gly Asp Glu Asp Glu Asn Ser Pro Cys Ala His
 20 25 30
 Glu Ala Leu Leu Asp Glu Asp Thr Leu Phe Cys Gln Gly Leu Glu Val
 35 40 45
 Phe Tyr Pro Glu Leu Gly Asn Ile Gly Cys Lys Val Val Pro Asp Cys
 50 55 60
 Asn Asn Tyr Arg Gln Lys Ile Thr Ser Trp Met Glu Pro Ile Val Lys
 65 70 75 80
 Phe Pro Gly Ala Val Tyr Gly Ala Thr Tyr Ile Leu Val Met Val Asp
 85 90 95
 Pro Asp Ala Pro Ser Arg Ala Glu Pro Arg Gln Arg Phe Trp Arg His
 100 105 110
 Trp Leu Val Thr Asp Ile Lys Gly Ala Asp Leu Lys Lys Gly Lys Ile
 115 120 125
 Gln Gly Gln Glu Leu Ser Ala Tyr Gln Ala Pro Ser Pro Pro Ala His
 130 135 140
 Ser Gly Phe His Arg Tyr Gln Phe Phe Val Tyr Leu Gln Glu Gly Lys
 145 150 155 160
 Val Ile Ser Leu Leu Pro Lys Glu Asn Lys Thr Arg Gly Ser Trp Lys

```

165          170          175
Met Asp Arg Phe Leu Asn Arg Phe His Leu Gly Glu Pro Glu Ala Ser
180          185          190
Thr Gln Phe Met Thr Gln Asn Tyr Gln Asp Ser Pro Thr Leu Gln Ala
195          200          205
Pro Arg Glu Arg Ala Ser Glu Pro Lys His Lys Asn Gln Ala Glu Ile
210          215          220
Ala Ala Cys
225

<210> 6189
<211> 2761
<212> DNA
<213> Homo sapiens

<400> 6189
ngccgcgctg gcattttctc ctggacaag agagagtgcg gctgctgaga gccgagccca
60
gcaatccoga tcctctgagt cgtgaagaag ggaggcagcg aggggggttg ggttggggcc
120
tgaggcaagc cccaggctc cgctcttgcc agagggacag gagccatggc tcagaaaaatg
180
gactgtggtg cgggcctcct cggtctccag gctgaggcct ccgtagaaga cagcgcttg
240
cttatgcaga ccttgatgga ggccatccag atctcagagg ctccacctac taaccaggcc
300
accgcagctg ctagtcccca gagttcacag cccccaactg ccaatgagat ggctgacatt
360
caggtttcag cagctgccgc taggcctaag tcagccttta aagtcagaa tgccaccaca
420
aaaggcccaa atggtgteta tgatttctct caggctcata atgccaagga tgtgcccaac
480
acgcagccca aggcagcctt taagtcctaa aatgctaccc caaagggtcc aaatgctgcc
540
tatgatTTTT cccaggcagc aacctggt gagttagctg ctaacaagtc tgagatggcc
600
ttcaaggccc agaatgccac tactaaagt ggcccaaatg ccacctacaa tttctctcag
660
tctctcaatg ccaatgacct ggccaacagc aggcctaaga ccctttcaa gggttgaat
720
gataccacta agggcccaac agctgatacc cagaccaga atgtaaatca ggccaaaatg
780
gccacttccc aggctgacat agagaccgac ccaggtatct ctgaacctga cggtgcaact
840
gcacagacat cagcagatgg ttccaggct cagaatctgg agtcccgac aataattcgg
900
ggcaagagga cccgcaagat taataacttg aatgttgaa agaacagcag tggggatcag
960
aggcgggccc cactggctgc agggacctgg aggtctgcac cagtccagtc gaccactcag
1020
aaccacactg gcgcaccccc caatgtgctc tggcagacgc cattggcttg gcgaacccc
1080
tcaggctggc aaaaccagac agccaggcag accccaccag cagctcagag ccctccagtc
1140

```

aggcagaccc caccagcctg gcagaccag aaccagtcg ctggcagaa cccagtgtt
1200
tggccaaacc cagtaatctg gcagaacca gtgactgtgc caaaccccc tgtctggccc
1260
ggccctgttg tctggcggaa tccactggcc tggcagaatc cacctggatg gcgactcca
1320
cctggatggc agaccccacc gggctggcag ggtcctccag actggcaagg tcctcctgac
1380
tggcgcgtac caccgactg gccactgcc cctgattggc cacttcccac tgactggcca
1440
ctaccacctg actggatccc cgctgattgg ccaattccac ctgactggca gaacctgcgc
1500
ccctgcgcta acctgcgccc ttctcccaac tcgctgcct cacagaacc aggtgctgca
1560
cagccccgag atgtggccct tcttcaggaa agagcaaata agttggtcaa gtacttgatg
1620
cttaaggact acacaaagg gcccatcaag cgctcagaaa tgcctgagaga tatcatccgt
1680
gaatacactg atgtttatcc agaaatcatt gaacgtgat gctttgtcct agagaagaaa
1740
tttgggtatc aactgaaaga aattgacaaa gaagaacacc tgtatattct catcagtacc
1800
cccaggtccc tggctggcat actgggaacg accaaagaca caccgaagct cggctcctc
1860
tgggtgtatc tgggtgtcat ctctcatgat ggcaaccgtg ccagtgaggc tgcctcctgg
1920
gaggcactac gcaagatggg actgcgtcct ggggtgagac atccccctc ttgagatcta
1980
aggaaaactc tcacctatga gtttgtaaag cagaaatacc tggactacag acgagtggcc
2040
aacagcaacc ccccgagta tgagtctcct tggggcctcc gtctctacca tgagactagc
2100
aagatgaaag tgctgagatt cattgcagag gttcagaaaa gagaccctcg tgactggact
2160
gcacagttaa tggaggctgc agatgaggcc ttggatgctc tggatgctgc gcagctgag
2220
gccgaagccc gggctgaagc aagaaccccg atgggaattg gagatgaggc tgtgtctggg
2280
ccctggagct gggatgacat tgagtttgag ctgctgacct gggatgagga aggagatttt
2340
ggagatccct ggtccagaat tccatttacc ttctgggcca gataaccaca gaatccccgc
2400
tccagattcc ctccagacct tgcgggtccc attattggtc ctggtggtag agccagtgcc
2460
aaactcgctg ccaactttgg tgccattggt ttcttctggg ttgagtgaga tgttggatat
2520
tgctatcaat cgcagtagtc ttccccctgt gtgaggctga agcctcagat tccttctaaa
2580
cacagctatc tagagagcca catcctgttg actgaaagtg gcattgcaaga taaattttat
2640
tgctgttctc ttgtctactgc tttttttccc ctgtgtgtct gtcaagtttt ggtatcagaa
2700
ataaacattg aaattgcaaa gtgaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa
2760

a

2761

<210> 6190

<211> 576

<212> PRT

<213> Homo sapiens

<400> 6190

```

Met Ala Thr Ser Gln Ala Asp Ile Glu Thr Asp Pro Gly Ile Ser Glu
  1          5          10          15
Pro Asp Gly Ala Thr Ala Gln Thr Ser Ala Asp Gly Ser Gln Ala Gln
  20          25          30
Asn Leu Glu Ser Arg Thr Ile Ile Arg Gly Lys Arg Thr Arg Lys Ile
  35          40          45
Asn Asn Leu Asn Val Glu Glu Asn Ser Ser Gly Asp Gln Arg Arg Ala
  50          55          60
Pro Leu Ala Ala Gly Thr Trp Arg Ser Ala Pro Val Pro Val Thr Thr
  65          70          75          80
Gln Asn Pro Pro Gly Ala Pro Pro Asn Val Leu Trp Gln Thr Pro Leu
  85          90          95
Ala Trp Gln Asn Pro Ser Gly Trp Gln Asn Gln Thr Ala Arg Gln Thr
  100          105          110
Pro Pro Ala Arg Gln Ser Pro Pro Ala Arg Gln Thr Pro Ala Trp
  115          120          125
Gln Thr Gln Asn Pro Val Ala Trp Gln Asn Pro Val Ile Trp Pro Asn
  130          135          140
Pro Val Ile Trp Gln Asn Pro Val Ile Trp Pro Asn Pro Ile Val Trp
  145          150          155          160
Pro Gly Pro Val Val Trp Pro Asn Pro Leu Ala Trp Gln Asn Pro Pro
  165          170          175
Gly Trp Gln Thr Pro Pro Gly Trp Gln Thr Pro Pro Gly Trp Gln Gly
  180          185          190
Pro Pro Asp Trp Gln Gly Pro Pro Asp Trp Pro Leu Pro Pro Asp Trp
  195          200          205
Pro Leu Pro Pro Asp Trp Pro Leu Pro Thr Asp Trp Pro Leu Pro Pro
  210          215          220
Asp Trp Ile Pro Ala Asp Trp Pro Ile Pro Pro Asp Trp Gln Asn Leu
  225          230          235          240
Arg Pro Ser Pro Asn Leu Arg Pro Ser Pro Asn Ser Arg Ala Ser Gln
  245          250          255
Asn Pro Gly Ala Ala Gln Pro Arg Asp Val Ala Leu Leu Gln Glu Arg
  260          265          270
Ala Asn Lys Leu Val Lys Tyr Leu Met Leu Lys Asp Tyr Thr Lys Val
  275          280          285
Pro Ile Lys Arg Ser Glu Met Leu Arg Asp Ile Ile Arg Glu Tyr Thr
  290          295          300
Asp Val Tyr Pro Glu Ile Ile Glu Arg Ala Cys Phe Val Leu Glu Lys
  305          310          315          320
Lys Phe Gly Ile Gln Leu Lys Glu Ile Asp Lys Glu Glu His Leu Tyr
  325          330          335
Ile Leu Ile Ser Thr Pro Glu Ser Leu Ala Gly Ile Leu Gly Thr Thr
  340          345          350
Lys Asp Thr Pro Lys Leu Gly Leu Leu Leu Val Ile Leu Gly Val Ile

```

```

      355              360              365
Phe Met Asn Gly Asn Arg Ala Ser Glu Ala Val Leu Trp Glu Ala Leu
370              375              380
Arg Lys Met Gly Leu Arg Pro Gly Val Arg His Pro Leu Leu Gly Asp
385              390              395              400
Leu Arg Lys Leu Leu Thr Tyr Glu Phe Val Lys Gln Lys Tyr Leu Asp
405              410              415
Tyr Arg Arg Val Pro Asn Ser Asn Pro Pro Glu Tyr Glu Phe Leu Trp
420              425              430
Gly Leu Arg Ser Tyr His Glu Thr Ser Lys Met Lys Val Leu Arg Phe
435              440              445
Ile Ala Glu Val Gln Lys Arg Asp Pro Arg Asp Trp Thr Ala Gln Phe
450              455              460
Met Glu Ala Ala Asp Glu Ala Leu Asp Ala Leu Asp Ala Ala Ala Ala
465              470              475              480
Glu Ala Glu Ala Arg Ala Glu Ala Arg Thr Arg Met Gly Ile Gly Asp
485              490              495
Glu Ala Val Ser Gly Pro Trp Ser Trp Asp Asp Ile Glu Phe Glu Leu
500              505              510
Leu Thr Trp Asp Glu Glu Gly Asp Phe Gly Asp Pro Trp Ser Arg Ile
515              520              525
Pro Phe Thr Phe Trp Ala Arg Tyr His Gln Asn Ala Arg Ser Arg Phe
530              535              540
Pro Gln Thr Phe Ala Gly Pro Ile Ile Gly Pro Gly Gly Thr Ala Ser
545              550              555              560
Ala Asn Phe Ala Ala Asn Phe Gly Ala Ile Gly Phe Phe Trp Val Glu
565              570              575

```

<210> 6191

<211> 3021

<212> DNA

<213> Homo sapiens

<400> 6191

```

ctttgagaag gaacctgtcc cctcagggat taagcaagca cagccctagt tgatcaccca
60
gcatgaaaag tcttggaatc tctcagagat gaacctgtgt atgggagttt tgcttaagt
120
gtacttcaag aagggtcctc tgtttacttt ggttttgcac tgccatgcga ccagggtggtg
180
caggtctccc aaatgccacc cccctccaag ctccctcttt tgctctaagt cctcaggcct
240
cctgggcctg ggacagatgg ttgtttgtgt catcaggact cgtgggggtc tatgcgtgga
300
gcactcaccg cagcctaagc tgggatccca gctcagaggt caggccatgt tgggatgttt
360
agggaagggt atgcattatc aggagacata tctactgtcc cctgcccctgt acccccaggc
420
attgatctgg agaacattgt gtactacaag gacgacacc actactttgt gatgacagcc
480
aagaagcagt gctgtctgcg gctgggggtg ctgogccagg actggccaga caccaatcgg
540
ctgctgggca gtgccaatgt ggtgaccgag gctctgcagc gctttaccg ggcagctgct
600

```

gactttgcc a cccatggcaa gctcgggaaa cttagagtttg cccaggatgc ccatgggcag
660
cctgatgtct ctgcctttga cttcacgagc atgatgcggg cagagagttc tgctcgtgtg
720
caagagaagc atggcgcccg cctgctgctg ggactgggtg gggactgcct ggtggagccc
780
ttctggcccc tgggcactgg agtggcacgg ggcttcctgg cagcctttga tgcagcctgg
840
atggtgaagc ggtgggcaga gggcgctgag tccctagagg tgttggctga gcgtgagagc
900
ctgtaccagc ttctgtcaca gacatcccca gaaaacatgc atcgcaatgt gggccagtat
960
gggctggacc cagccaccgg ctaccccaac ctgaacctcc gggcagtgac ccccaatcag
1020
gtacgagacc tgtatgatgt gctagccaag gagcctgtgc agaggaacaa cgacaagaca
1080
gatacagggg tggcagccac cgggtcggca ggcacccagg aggagctgct acgctggtgc
1140
caggagcaga cagctgggta cccggggagtc cagctctcgg atttgtcttc ctctggggt
1200
gatgggctag ctctgtgtgc cctggtgtac cggctgcagc ctggcctgct ggaacctca
1260
gagctgcagg ggtggggagc tctggaagca actgcttggg cactaaaggt ggcagagaat
1320
gagctgggca tcacaccggt ggtgtctgca caggccgtgg tagcagggag tgacccactg
1380
ggcctcattg cctacctcag ccacttccac agtgccctca agagcatggc ccacagccca
1440
ggccctgtca gccaggcctc cccagggacc tccagtgtgt tattatctct tagtaaaact
1500
cagaggaccc tgcagcgatc cggggccaag gacttattgc aggaaaatgc agaggatgct
1560
ggtggcaaga agctgcgctt ggagatggag gccgagaccc caagtactga ggtgccacct
1620
gacccagagc ctggtgtacc cctgacaccc ccattcccaac accaggaggc cgggtgctggg
1680
gacctgtgtg cactttgtgg ggaacacctc tatgtcctgg aacgcctctg tgtcaacggc
1740
catttcttcc accggagctg cttccgctgc catacctgtg aggccacact gtggccagggt
1800
ggctatgagc agcaccagg agatggacat ttctactgcc tccagcacct gccccagaca
1860
gaccacaaag cggaaggcag cgatagaggc cctgagagtc cggagctccc cacaccaagt
1920
gagaatagca tggcaccagg cctctcaact cccacagcct cgcaggaggg ggccggtcct
1980
gttccagatc ccagccagcc caccgctggc cagatccggc tctccagccc gtagcgccag
2040
cgggtgtcct cccttaacct taccctgac ccggaaatgg agcctccacc caagcctccc
2100
cgagctgct cgcgcttgcc ccgcccagcc ctggagagca gctttgtggg ctggggcctg
2160
ccagtccaga gccctcaagc tcttgtggcc atggagaagg aggaaaaaga gagtcccttc
2220

tccagtgaag aggaagaaga agatgtgcct ttggactcag atgtggaaca ggccctgcag
 2280
 acctttgccag agacctcagg caccatgaat aactacccaa catggcgctcg gactctgctg
 2340
 cgccgtgcga agggaggagga gatgaagagg ttctgcaagg ccagaccat ccaacggcgca
 2400
 ctaaatgaga ttgaggctgc cttgagggag cttagaggccg agggcgtaga gctggagctg
 2460
 gccttgaggc gccagagcag ttccccagaa cagcaaaaga aactatgggt aggacagctg
 2520
 ctacagctcg ttgacaagaa aaacagcctg gtggctgagg aggccgagct catgatcacg
 2580
 gtgcaggaat tgaatctgga ggagaaacag tggcagctgg accaggagct acgaggctac
 2640
 atgaaccggg aagaaaacct aaagacagct gctgatcggc aggctgagga ccaggctctg
 2700
 aggaagctgg tggatttggg caaccagaga gatgccctca tccgcttcca ggaggagcgc
 2760
 aggctcagcg agctggcctt ggggacaggg gcccagggt agacgagggt ggccgctctg
 2820
 ctttcgttcc cacaagaaa gcacctcacc ccagcacagt gccaccctg ttcattctgg
 2880
 ctgcctggca gagagccttg ctgtttacaa ttaaatgtt tctgccacaa aaaaaaaaaa
 2940
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa
 3000
 aaaaaaaaaa aaaaaaaaaa a
 3021

<210> 6192

<211> 815

<212> PRT

<213> Homo sapiens

<400> 6192

Met Phe Arg Glu Gly Asp Ala Leu Ser Gly Asp Ile Ser Thr Val Pro
 1 5 10 15
 Cys Pro Val Pro Pro Gly Ile Asp Leu Glu Asn Ile Val Tyr Tyr Lys
 20 25 30
 Asp Asp Thr His Tyr Phe Val Met Thr Ala Lys Lys Gln Cys Leu Leu
 35 40 45
 Arg Leu Gly Val Leu Arg Gln Asp Trp Pro Asp Thr Asn Arg Leu Leu
 50 55 60
 Gly Ser Ala Asn Val Val Thr Glu Ala Leu Gln Arg Phe Thr Arg Ala
 65 70 75 80
 Ala Ala Asp Phe Ala Thr His Gly Lys Leu Gly Lys Leu Glu Phe Ala
 85 90 95
 Gln Asp Ala His Gly Gln Pro Asp Val Ser Ala Phe Asp Phe Thr Ser
 100 105 110
 Met Met Arg Ala Glu Ser Ser Ala Arg Val Gln Glu Lys His Gly Ala
 115 120 125
 Arg Leu Leu Leu Gly Leu Val Gly Asp Cys Leu Val Glu Pro Phe Trp
 130 135 140
 Pro Leu Gly Thr Gly Val Ala Arg Gly Phe Leu Ala Ala Phe Asp Ala

145 150 155 160
 Ala Trp Met Val Lys Arg Trp Ala Glu Gly Ala Glu Ser Leu Glu Val
 165 170 175
 Leu Ala Glu Arg Glu Ser Leu Tyr Gln Leu Leu Ser Gln Thr Ser Pro
 180 185 190
 Glu Asn Met His Arg Asn Val Ala Gln Tyr Gly Leu Asp Pro Ala Thr
 195 200 205
 Arg Tyr Pro Asn Leu Asn Leu Arg Ala Val Thr Pro Asn Gln Val Arg
 210 215 220
 Asp Leu Tyr Asp Val Leu Ala Lys Glu Pro Val Gln Arg Asn Asn Asp
 225 230 235 240
 Lys Thr Asp Thr Gly Met Pro Ala Thr Gly Ser Ala Gly Thr Gln Glu
 245 250 255
 Glu Leu Leu Arg Trp Cys Gln Glu Gln Thr Ala Gly Tyr Pro Gly Val
 260 265 270
 His Val Ser Asp Leu Ser Ser Trp Ala Asp Gly Leu Ala Leu Cys
 275 280 285
 Ala Leu Val Tyr Arg Leu Gln Pro Gly Leu Leu Glu Pro Ser Glu Leu
 290 295 300
 Gln Gly Leu Gly Ala Leu Glu Ala Thr Ala Trp Ala Leu Lys Val Ala
 305 310 315 320
 Glu Asn Glu Leu Gly Ile Thr Pro Val Val Ser Ala Gln Ala Val Val
 325 330 335
 Ala Gly Ser Asp Pro Leu Gly Leu Ile Ala Tyr Leu Ser His Phe His
 340 345 350
 Ser Ala Phe Lys Ser Met Ala His Ser Pro Gly Pro Val Ser Gln Ala
 355 360 365
 Ser Pro Gly Thr Ser Ser Ala Val Leu Phe Leu Ser Lys Leu Gln Arg
 370 375 380
 Thr Leu Gln Arg Ser Arg Ala Lys Asp Leu Leu Gln Glu Asn Ala Glu
 385 390 395 400
 Asp Ala Gly Gly Lys Lys Leu Arg Leu Glu Met Glu Ala Glu Thr Pro
 405 410 415
 Ser Thr Glu Val Pro Pro Asp Pro Glu Pro Gly Val Pro Leu Thr Pro
 420 425 430
 Pro Ser Gln His Gln Glu Ala Gly Ala Gly Asp Leu Cys Ala Leu Cys
 435 440 445
 Gly Glu His Leu Tyr Val Leu Glu Arg Leu Cys Val Asn Gly His Phe
 450 455 460
 Phe His Arg Ser Cys Phe Arg Cys His Thr Cys Glu Ala Thr Leu Trp
 465 470 475 480
 Pro Gly Gly Tyr Glu Gln His Pro Gly Asp Gly His Phe Tyr Cys Leu
 485 490 495
 Gln His Leu Pro Gln Thr Asp His Lys Ala Glu Gly Ser Asp Arg Gly
 500 505 510
 Pro Glu Ser Pro Glu Leu Pro Thr Pro Ser Glu Asn Ser Met Pro Pro
 515 520 525
 Gly Leu Ser Thr Pro Thr Ala Ser Gln Glu Gly Ala Gly Pro Val Pro
 530 535 540
 Asp Pro Ser Gln Pro Thr Arg Arg Gln Ile Arg Leu Ser Ser Pro Glu
 545 550 555 560
 Arg Gln Arg Leu Ser Ser Leu Asn Leu Thr Pro Asp Pro Glu Met Glu
 565 570 575
 Pro Pro Pro Lys Pro Pro Arg Ser Cys Ser Ala Leu Ala Arg His Ala

	580		585		590										
Leu	Glu	Ser	Ser	Phe	Val	Gly	Trp	Gly	Leu	Pro	Val	Gln	Ser	Pro	Gln
	595						600					605			
Ala	Leu	Val	Ala	Met	Glu	Lys	Glu	Glu	Lys	Glu	Ser	Pro	Phe	Ser	Ser
	610					615						620			
Glu	Glu	Glu	Glu	Glu	Asp	Val	Pro	Leu	Asp	Ser	Asp	Val	Glu	Gln	Ala
625					630					635					640
Leu	Gln	Thr	Phe	Ala	Lys	Thr	Ser	Gly	Thr	Met	Asn	Asn	Tyr	Pro	Thr
				645					650					655	
Trp	Arg	Arg	Thr	Leu	Leu	Arg	Arg	Ala	Lys	Glu	Glu	Glu	Met	Lys	Arg
			660					665						670	
Phe	Cys	Lys	Ala	Gln	Thr	Ile	Gln	Arg	Arg	Leu	Asn	Glu	Ile	Glu	Ala
	675						680					685			
Ala	Leu	Arg	Glu	Leu	Glu	Ala	Glu	Gly	Val	Lys	Leu	Glu	Leu	Ala	Leu
	690					695						700			
Arg	Arg	Gln	Ser	Ser	Ser	Pro	Glu	Gln	Gln	Lys	Lys	Leu	Trp	Val	Gly
705					710					715					720
Gln	Leu	Leu	Gln	Leu	Val	Asp	Lys	Lys	Asn	Ser	Leu	Val	Ala	Glu	Glu
				725					730					735	
Ala	Glu	Leu	Met	Ile	Thr	Val	Gln	Glu	Leu	Asn	Leu	Glu	Glu	Lys	Gln
	740							745						750	
Trp	Gln	Leu	Asp	Gln	Glu	Leu	Arg	Gly	Tyr	Met	Asn	Arg	Glu	Glu	Asn
	755						760					765			
Leu	Lys	Thr	Ala	Ala	Asp	Arg	Gln	Ala	Glu	Asp	Gln	Val	Leu	Arg	Lys
	770					775					780				
Leu	Val	Asp	Leu	Val	Asn	Gln	Arg	Asp	Ala	Leu	Ile	Arg	Phe	Gln	Glu
785					790				795						800
Glu	Arg	Arg	Leu	Ser	Glu	Leu	Ala	Leu	Gly	Thr	Gly	Ala	Gln	Gly	
				805					810					815	

<210> 6193

<211> 2893

<212> DNA

<213> Homo sapiens

<400> 6193

```

nntgtatttt aaaacttggt ttttttagttt cattctgaga aattacattg agggtagagc
60
ctgttcatta ccttatccat gcatttttct gcttatttaa attattttac ttccaagaagc
120
cattcatttt tttagaacat ccttcaaaga gttcatgcat cttactgagg acacctgacc
180
ttttgaagct tcataattca catctagatg tcaccggctt ttcccatggt aacagttctg
240
accatgtttt attatatatg ccttcggcgc cgagccagga cagctacaag aggagaaagt
300
atgaacacccc atagagctat agaactcaac agccagactt cccctctcaa tgcagaggta
360
gtccagtatg ccaaagaagt agtggatttc agttcccat atggaagtga gaatagtagt
420
tcctatacta tgttgaattt ggctgggtga ccaaatgtat tcccaagttc tgggtacttt
480
actcagacag ctgtgtttcg aacttatggg acatgggtggg atcagtgtcc tagtgcttcc
540

```

ttgccattca agaggacgcc acctaatttt cagagccagg actatgtgga acttactttt
600
gaacaacagg tgtatcctac agctgtacat gttctagaaa cctatcatcc cggagcagtc
660
attagaattc tcgcttggtc tgcaaatcct tattccccaa atccaccagc tgaagtaaga
720
tgggagatcc tttggtcaga gagacctacg aaggtgaatg cttcccaagc tcgccagttt
780
aaaccttgta ttaagcagat aaatttcccc acaaatctta tacgactgga agtaaatagt
840
tctctctctg aatattacac tgaattagat gcagttgtgc tacatgggtg gaaggacaag
900
ccagtgcctt ctctcaagac ttcacttatt gacatgaatg atatagaaga tgaatgcctat
960
gcagaaaagg atgggtgtgg aatggacagt ctaacaaaa agtttagcag tgctgtcctc
1020
ggggaagggc caaataatgg gtattttgat aaactacctt atgagcttat tcagctgatt
1080
ctgaatcatc ttacactacc agacctgtgt agattagcac agacttgcaa actactgagc
1140
cagcatttgt gtgatcctct gcaatacatc cactccaate tgcaaccata ctggggcaaaa
1200
ctagatgaca cttctctgga atttctacag tctcgctgca ctctgttcca gtggcttaat
1260
ttatcttggc ctggcaatag aggcttcatc tctgttcgag gatttagcag gtttctgaag
1320
gttctgtgat ccgaattagt acgccttgaa ttgtcttgca gccactttct taatgaaact
1380
tgcttagaag ttatttctga gatgtgtcca aatctacagg ccttaaatct ctctcctgt
1440
gataagctac cactcaagc tttcaaccac attgccaaat tatgcagcct taaacgactt
1500
gttctctatc gaacaaaagt agagcaaaaca gcactgtcca gcattttgaa cttctgttca
1560
gagcttcagc acctcagttt aggcagttgt gtcatgatg aagactatga tgtgatagct
1620
agcatgatag gagccaagtg taaaaaactc cggaccctgg atctgtggag atgtaagaat
1680
attactgaga atggaatagc agaactggct tctgggtgct cactactgga ggagcttgac
1740
ctgggtgggt gcccaactct gcagagcagc accgggtgct tcaccagact ggcacaccag
1800
ctcccaactc tgcaaaaact ctttcttaca gctaatagat ctgtgtgtga cacagacatt
1860
gatgaattgg catgtaattg taccaggtta cagcagctgg acatattagg aacaagaatg
1920
gtaagtcagg catccttaag aaaactcctg gaattctgta aagatcttct tttacttgat
1980
gtgtccttct gttcgcagat tgataacaga gctgtgctag aactgaatgc aagctttcca
2040
aaagtgttca taaaaaagag ctttactcag tgacttaata tatgttctgt attaaatta
2100
atgtgctttg ttgggggttta attttgggat tgggttttgg ttttgttttt agttgtttta
2160

atggtaagaa ttaagacatt ttagatattt aaagaaaaat atgaaattgt ccattaaatc
 2220
 aagtaaaaaa gtgcacaaat gttttcataa aatactgcaa gcactttctc tcaagaatat
 2280
 gagtggatat tatttttacc ttagttaa ttagtgaatg ctttagtcaa taatatgatt
 2340
 gataaaagaa taacatggaa tcatgctaac ttattttcaa aggaacactg agcaataaag
 2400
 tatcgtggca tttatgcaaa aaaaaaagtt aattttttac accttcatgt aaggatgtct
 2460
 tattaagcct gtgacctggc aagtgttttg tttggtagtg acaaaaatgg cagagctagt
 2520
 tggagaatga gacatgcttt tccagctgtt tggttatttc tetggattaa ctgttcaact
 2580
 ggaaaatttt tagtttttct agccaggtgt ggtggcacac actttagtgc cttagcgacac
 2640
 gggaggtgga ggcaggagga ttacttgaga tgggattttg agactctagt gtacttatga
 2700
 ttgcacctgt gacgagccac tgcactccaa cctgggcaat atagcgagtc cctttctctt
 2760
 aaaaaaaatt gtagtgtttc cacttttctt ctgatatatt tgtctatttc actactggat
 2820
 aatgccaata taaaatttg ggtataatca agaataagag gtaaaactact aaataaaaaa
 2880
 agctttccaa ctg
 2893

<210> 6194

<211> 621

<212> PRT

<213> Homo sapiens

<400> 6194

Met	Ser	Pro	Val	Phe	Pro	Met	Leu	Thr	Val	Leu	Thr	Met	Phe	Tyr	Tyr
1				5					10					15	
Ile	Cys	Leu	Arg	Arg	Arg	Ala	Arg	Thr	Ala	Thr	Arg	Gly	Glu	Met	Met
		20						25					30		
Asn	Thr	His	Arg	Ala	Ile	Glu	Ser	Asn	Ser	Gln	Thr	Ser	Pro	Leu	Asn
		35					40					45			
Ala	Glu	Val	Val	Gln	Tyr	Ala	Lys	Glu	Val	Val	Asp	Phe	Ser	Ser	His
	50					55					60				
Tyr	Gly	Ser	Glu	Asn	Ser	Met	Ser	Tyr	Thr	Met	Trp	Asn	Leu	Ala	Gly
	65				70					75				80	
Val	Pro	Asn	Val	Phe	Pro	Ser	Ser	Gly	Asp	Phe	Thr	Gln	Thr	Ala	Val
				85					90					95	
Phe	Arg	Thr	Tyr	Gly	Thr	Trp	Trp	Asp	Gln	Cys	Pro	Ser	Ala	Ser	Leu
			100						105					110	
Pro	Phe	Lys	Arg	Thr	Pro	Pro	Asn	Phe	Gln	Ser	Gln	Asp	Tyr	Val	Glu
		115					120					125			
Leu	Thr	Phe	Glu	Gln	Gln	Val	Tyr	Pro	Thr	Ala	Val	His	Val	Leu	Glu
	130					135					140				
Thr	Tyr	His	Pro	Gly	Ala	Val	Ile	Arg	Ile	Leu	Ala	Cys	Ser	Ala	Asn
	145				150					155				160	
Pro	Tyr	Ser	Pro	Asn	Pro	Pro	Ala	Glu	Val	Arg	Trp	Glu	Ile	Leu	Trp

[illegible]

```

595                               600                               605
Ser Phe Pro Lys Val Phe Ile Lys Lys Ser Phe Thr Gln
610                               615                               620

<210> 6195
<211> 518
<212> DNA
<213> Homo sapiens

<400> 6195
ggatcccaag agatattttc tgagctgaac tatgtgtgtca cagaaggcca gctcccagca
60
gcacgggact atgaggggttc gccctgtttc tgttagcccc agctgggttc ctggggaaaa
120
gtttccactt ctgctgtcaa gaaccacaag ggtcaagccc catccctaca aataccaagt
180
acatccaaat tcttctactgg cacagaaatg gtgttacatc cactgggaac aaacctgcac
240
gccaccccca aggcattgtga caacagggac tgctaattgag ctttgtccgg gtaactcatt
300
cacgccatca tcttgctctt tccatagtca cttattaagc acaactatg ccaaaaaacta
360
tgtccagcac cgcacaggat ggtaaaatgc cctgaggggc cacccccacg tgactcccg
420
tgagcggagt gggcagccct gcctggggag tcacgcctcc tgcaccacag tgcccccttg
480
ttatctctgc ctggatgcct cacaggcatc tcacgcgt
518

<210> 6196
<211> 117
<212> PRT
<213> Homo sapiens

<400> 6196
Met Trp Ser Gln Lys Ala Ser Ser Gln Gln His Gly Thr Met Arg Val
1 5 10 15
Arg Pro Val Leu Cys Ser Pro Ser Trp Phe Pro Gly Glu Lys Phe Pro
20 25 30
Leu Leu Leu Ser Arg Thr Thr Arg Val Lys Pro His Pro Tyr Lys Tyr
35 40 45
Gln Val His Pro Asn Ser Ser Leu Ala Gln Lys Trp Cys Tyr Ile His
50 55 60
Trp Glu Gln Thr Cys Ile Pro Thr Pro Arg His Val Thr Thr Gly Thr
65 70 75 80
Ala Asn Glu Leu Cys Pro Gly Asn Ser Phe Thr Pro Ser Ser Cys Ser
85 90 95
Phe His Ser His Leu Leu Ser Thr Asn Tyr Ala Lys Asn Tyr Val Gln
100 105 110
His Arg Thr Gly Trp
115

<210> 6197
<211> 2841

```

<212> DNA

<213> Homo sapiens

<400> 6197

nagcattctt ccatctgtag atgtttcagc tgctgtacaa gggagtecca ttctcaggtg
60
ggggctgggc atggtcactc ctgctggatg tctggaaggt gaaaaccaag gacctaggga
120
aataccaggt acagcctttc cccgctcacc cagagcagga caaacaggcc aggttggtatc
180
aggagcccgag gtctccagct ggagggaatg tcaacctgc agtgggagca gggggccatc
240
acgcaccta ggcacagatg ctaatgcagg cactgcaggt aagctgggct tggtatcctt
300
ccctggcttc agaagaagc caacaaggag cgttttgag aatgaaacct ttgtttccag
360
aagcactgct gactgtaagt ggttgccgtt tgtggcagtg agcatcttgt ccattctgag
420
gttggaattg tttctccttt tggccttgcc ctgccctaca gaccataaag gagaacagca
480
agaagccccc agcaaaccac cacagatggc cctggacatc agccacatc tgagggaacat
540
gtcatgttct gggagggcta aggcatacag taaggcctgt ggggctggag gatcacaggg
600
caggtggggc aatccagagc catgggggct tcccatggga attgggaggt cccaaggcag
660
agtcagaggt tccacaggag gagtcagaga gtcaccaagg gctctcctgg cccaggggagc
720
agtcaacacc atggactgaa caccactgg gctccaacc ttggggcagg ctggggcatg
780
tggggccagg aggcagctca gagtgggagg cagagagaga agtgtgttca gagggcaccc
840
atatctggat gtaatgtggt cctgagactc tggctgggaa gtgcttcacg ggtttcatat
900
gtgttatgca gctacttcct ctcccaacc ttaccgtgca ggaatcccag tgaatatgtt
960
gccaccatct tggagctcag tgccctcata gtgtaacagc accagcagat ctgectgtgc
1020
acagacttcc tgtactacct cactcctgag gggagatgct tctgcagggc ctgcgacctg
1080
gtgcacaact ttnnagacac catcatcctg gagcggcact gcacctcac tagcagggt
1140
gttgatgact tctcctaatgc caaggccacg ttcaagattt tcgacttcag tgatgcgttt
1200
gtgctgagca aggtgggctt ctccgggatt ttagttcagg aggtagaatg cagcttgaga
1260
tcaagtgtct gatcaataa cttgaacttg atctggagag ctctggggag ccatagaagt
1320
tgttggtata aggagggaca gtcgtatatg ttttagagat gactgtggaa ggctgcctgg
1380
aaggagttaa caagagccag gagaccaggg agggagcttg tggggcaggc ctggagatga
1440
caaggggagg atctcgtctt gatgaaaggc cttcagggaa tgtctcaggt tacactcagg
1500

tgtcctcaga gctagtgtgt tcaggggtct tgccctccagg atgaaaatga gaaggagtgt
 1560
 tcagacaaga acatataaat gaaggctggc atcttcgtga gtgccaatcg ttgtcctggg
 1620
 gtggactact gtgggaatag ggggtctctcc atccagggag atgggtggatg gaccctacat
 1680
 cactccattc tgcccttctc ttccctccca ttctgagggc ctccagtcaa gggcgctgtc
 1740
 caacctctgg tgctgaagca gccgagagac ccaagcctgc cactcaggat atgacagcac
 1800
 agccagtggc ctctactgga tccctgtaca cctcagaaga cacctagaca ctgggagtgc
 1860
 tgccaccacg tgggtgcaaga gttctgaggg accgcaattc tgaagacatt gaatgctgt
 1920
 tcctgctccc tccatggacc tgcacagaat tgtcccatgt ttctgtttgt ttgggcacca
 1980
 ctgaggaagg aagcatgaag gacgcagagg tcaggccatt ctattgccct cctgctgtgt
 2040
 ggtctttaat cctgagatgg ctccaggggc tggctcttct ccatggcccc ctccacatat
 2100
 ctccagccatt ttgcaaaccc tgggtcagaat gaaacattcc ttgggaactc gggccatgag
 2160
 aagcatcctt cctgaccacc tgactgcgga aacatcctta tcgcatcctc ccggggcgaag
 2220
 gcccaacagc ctgactgcag gaacatcctt gccatatcct gccgggcagc aagctctacc
 2280
 gccagagccc ctccctccca gtcccatgat cgcgccagcc tgtgagcggc agttggtgat
 2340
 ggcaactaagc tgatttctct ctctgcaggg ttttgtagt aataaagggt ttgctgttga
 2400
 agccgtcaac tgtctttcta tgtctttctt taacccttgc cttgccttca aaatctaaca
 2460
 atagctctac ctctccattt taccaaggag gatatgagac tcaaggagag caagagactt
 2520
 acccagaatt acacagccag tgagtccag aacttgaact tgagctcagt tcagctgaat
 2580
 ccagaactca tgtcttctct agagtccagg gaaggaaaagg tggaaactga gccagtgggt
 2640
 cccacaggct tgtcctagga gaccacatgc agactcctgt gaattgtgtc ctcttgggca
 2700
 caaaagaaga actgttcacc tgtgctgcat cagctaagtg tccccattgt cccaaattgt
 2760
 tatatttttt caaagtttca ttttagtaac tagattttct acagctcagt gttgaaaaca
 2820
 aagcacagag gcatatagaa a
 2841

<210> 6198

<211> 124

<212> PRT

<213> Homo sapiens

<400> 6198

Met Gly Ala Ser His Gly Asn Trp Glu Val Pro Arg Gln Ser Gln Arg

1	5	10	15
Phe His Arg Arg Ser Gln Arg Val Thr Lys Gly Ser Pro Gly Pro Gly			
20	25	30	
Ser Ser Gln His His Gly Leu Asn Thr His Trp Ala Pro Thr Leu Gly			
35	40	45	
Pro Gly Trp Gly Met Trp Gly Gln Glu Ala Ala Gln Ser Gly Arg Gln			
50	55	60	
Arg Glu Lys Cys Val Gln Arg Ala Pro Ile Ser Gly Cys Asn Val Val			
65	70	75	80
Leu Arg Leu Trp Leu Gly Ser Ala Ser Arg Val Ser Tyr Val Leu Cys			
85	90	95	
Ser Tyr Phe Leu Ser Pro Thr Leu Pro Cys Arg Asn Pro Ser Glu Tyr			
100	105	110	
Val Ala Thr Ile Leu Glu Leu Ser Ala Leu Ile Val			
115	120		

<210> 6199

<211> 1777

<212> DNA

<213> Homo sapiens

<400> 6199

```

ctgcttttcc cagcagctatt agtgtccccc aggcaggagg ccttttccac attacatcac
60
tgccccatcc cactttacaa cactctggcc cctctgcttg gtcccccttt tccccaggca
120
ggaggcaatc ccaggggcct gctgataga ggcatcttct gtccctgtct cctcctgcat
180
ctcctttatc ctgcaactgc accctctatt cccattctg tgttggaact tgaaggcccc
240
aagccccagc aaagcactga gttccccctt aagacacctc cacacctcc ccacaagcaa
300
agcacaaatt ttgggtcca ttagcatgg gccacgtagg aggtcctga cttgccaggg
360
gccagcctc agcatacca ccgaggcagc tgccagcctg ggctgagggt gggcatgagg
420
caggagtcag cacttggaac tagggatgtg aggttttctg tgccccaaat ttgtgggaag
480
gtgggcacta ctgctgggcc cacagacaca gccagctggc aaaagggagg tctagccag
540
cagagagatg aggacatttt gcttctcctt catgccaca gcatgagctg agcttctgct
600
ttgctggaaa tgaataaaac ttggtatgaa ttgtgccaa gctccccag ttgtcatcct
660
gcctcttggt gccctccctg tccttgcccc caccaccaca cccatgcccc tgtttctcta
720
cagattttga tattgttcta atgtgtaata gaaccagcog agtccccctt tatcagaagg
780
gtctgaaaag cagcagcaca gagtaggtga acacaggcct gcaagtgcga ccacctcaga
840
cccagtaagt gtgccacag tggacacact cacacctcca acacaccac gcgaggcagt
900
gtgtacacgc atgtacacac gcatgcctgc acagccagat ggccactcag cacagatgtg
960

```

gcagagggaa tggctctgac ctgctgaaag ccattaagga gaaacgaatt tcccagtgcc
 1020
 cgggctgcaa gagagcctta taggggccct gtttctggg catgcgttc ctctgccagc
 1080
 caacccccac ttgcccaagt cactggtgca ataacttttc tgccttcttc agagcagaga
 1140
 aattgggaat tgtgttaggt ggggtgtggc agctctgctg agccaagcag acacggatgt
 1200
 cccctcttct gggaggagg tagtgctccc aggcctcagg agtccagaca gagaccccc
 1260
 aagcctgact gccaacagaa accctctcct agtgaggggc aggtgggtgt gcccnncagg
 1320
 tccccacacc cacaggagg cttcacacac tgcccagtag cggggatgcc aggaggcagg
 1380
 cccctctgct gctgccactg ctgccaacac tgcccagctt gtgaggccag gaggagcccc
 1440
 tgtccactc ggtgctgctg ctctcttgac cctgctggtg aggaatggga ttcttggtcg
 1500
 aaaaaattgg ttttctttt ttgtataaat gaaagaatc caggagaagc tgcccacctc
 1560
 cctcccagc gtgatgcgt accttgcttc ggcgtcttgt cgccttttc gcctttggtc
 1620
 cagggcagc ccagcagatc ctctgggttc tgacctggg ggtgtttgca tcacccccct
 1680
 ttacttgtat taaaaaaaaa tgatgggtt aaaatgtact gaggattaaa aatgtacttt
 1740
 tttataaata aagtgtttaa aacaaaaaaaa aaaaaaa
 1777

<210> 6200

<211> 164

<212> PRT

<213> Homo sapiens

<400> 6200

Val	Gly	Val	Gly	Ser	Ser	Ala	Glu	Pro	Ser	Arg	His	Gly	Cys	Pro	Leu
1				5				10					15		
Phe	Trp	Glu	Glu	Gly	Ser	Ala	Pro	Arg	Pro	Gln	Glu	Ser	Arg	Gln	Arg
		20						25				30			
Pro	Pro	Lys	Pro	Asp	Cys	Gln	Gln	Lys	Pro	Ser	Pro	Ser	Glu	Gly	Gln
		35				40					45				
Val	Gly	Val	Pro	Xaa	Arg	Ser	Pro	His	Pro	Gln	Gly	Gly	Phe	Thr	His
	50					55				60					
Cys	Pro	Val	Pro	Gly	Met	Pro	Gly	Gly	Arg	Pro	Leu	Cys	Cys	Cys	His
65				70					75					80	
Cys	Cys	Gln	His	Cys	Pro	Ala	Cys	Glu	Ala	Arg	Arg	Ser	Pro	Cys	Pro
			85					90					95		
Thr	Arg	Cys	Cys	Cys	Ser	Ser	Asp	Pro	Cys	Cys	Glu	Glu	Trp	Asp	Ser
			100				105						110		
Trp	Ser	Lys	Lys	Leu	Val	Phe	Leu	Phe	Cys	Ile	Asn	Glu	Lys	Asn	Pro
		115				120					125				
Gly	Glu	Ala	Ala	Thr	Leu	Pro	Ser	Gln	Arg	Asp	Ala	Leu	Pro	Cys	Phe
	130				135					140					
Gly	Val	Leu	Ser	Pro	Phe	Pro	Pro	Leu	Val	Gln	Gly	Gln	Pro	Ser	Arg

145
Ser Ser Trp Phe

150

155

160

<210> 6201
<211> 604
<212> DNA
<213> Homo sapiens

<400> 6201
acgcgtgggc atgtgcacgt gtgtgcctgt gcatgcgtga atatgcgtgt gtgtgcgtgc
60
tgtgctgagg acagcgtgag ttttcacaga agcaggtaaa aagttccaca ggaacagaga
120
ccaggacaag accagccctg atgggagaag ccaggaggacc cagaggaact tccaggaggc
180
ccttagctcc ctcagacaga atgcgggatac gcaatgccca gcaaagggca attcaaggac
240
agtggaacgt ggggagagga gcagagtgagg cagctctcag gagggcagga ctgcgaggct
300
gcagggagga gttcgggtggg aaggggacagc ctcagagcct aagctgcgcg tccctgggaaa
360
ggggtatgac tggcaggcac acaaatgtct ctcaaggaag gtgggcctgg ggccacagag
420
ctcccagagg agggagtgga gagggagagc ccgagagga gagaccaggc agggctggcg
480
atcacgcagg tgcacagggt gaacgtcagg actgaaacgg aagacaatgt ccccatgcaa
540
gactggctga aacgaactca cacagaattt ttaagaggct cctgtgttgg gtgaaaaccg
600
gccg
604

<210> 6202
<211> 124
<212> PRT
<213> Homo sapiens

<400> 6202
Met Gly Glu Ala Arg Gly Pro Arg Gly Thr Ser Arg Arg Pro Leu Ala
1 5 10 15
Pro Ser Asp Arg Met Arg Asp Arg Asn Ala Gln Gln Arg Ala Ile Gln
20 25 30
Gly Gln Trp Thr Leu Gly Arg Gly Ala Glu Trp Ala Ala Leu Arg Arg
35 40 45
Ala Gly Leu Arg Gly Cys Arg Glu Glu Phe Gly Gly Lys Gly Gln Pro
50 55 60
Gln Ser Leu Ser Cys Ala Ser Trp Glu Arg Gly Met Thr Gly Arg His
65 70 75 80
Thr Asn Val Ser Gln Gly Arg Trp Ala Trp Gly His Arg Ala Pro Arg
85 90 95
Gly Gly Ser Gly Glu Gly Glu Pro Ala Glu Glu Arg Pro Gly Arg Ala
100 105 110
Gly Asp His Ala Gly Ala Gln Gly Glu Arg Gln Asp

115

120

<210> 6203
<211> 3462
<212> DNA
<213> Homo sapiens

<400> 6203
nnaccgttgc ggccgcaggg gtctgggcag ggctgggcag tgctgccga gcaaaagcgg
60 tagcgggagc ccggccggag ctgggtctcg agacgccgtg gcagcctgaa cggagtgtgc
120 gacggattgg gaggtttgtc tacagatttt gagcgttcga agttgacccc tgactaagta
180 tactttgtct ctccctcagc ctttgaaaaa atgtctgtca catatgatga ttccgttgga
240 gtagaagtgt ccagcgacag cttctgggag gtcgggaact acaagcggac tgtgaagcgg
300 atcgacgatg gccaccgcct gtgcagcgac ctcatgaact gcctgcatga gcggcgcgcg
360 atcgagaagg cgtatgcgca gcagctcact gagtgggccc ggcgctggag gcagctcgtg
420 gagaaagggc ccagtagcgg gaccgtggag aaggcctgga tggccttcat gtccgaggca
480 gagaggggtga gcgagctgca ctcgaggtg aaggcctcac tgatgaacga tgacttcgag
540 aagatcaaga actggcagaa ggaagccttt cacaagcaga tgatgggcgg cttcaaggag
600 accaaggaag ctgaggacgg ctttcggaag gcacagaagc cctggggcaa gaagctgaaa
660 gaggtagaag cagcaaagaa agcccaccat gcagcgtgca aagaggagaa gctggctatc
720 tcacgagaag ccaacagcaa ggcagaccca tccctcaacc ctgaacagct caagaaattg
780 caagacaaaa tagaaaagtg caagcaagat gttcttaaga ccaaagagaa gtatgagaag
840 tcctgaagg aactcgacca gggcaccccc cagtacatgg agaactgga gcaggtgttt
900 gagcagtgcc agcagttcga ggagaaacgc ctcgcttct tcggggaggt tctgtgtagg
960 gttcagaagc acctagacct gtccaatgtg gctggctaca aagccattta ccatgacctg
1020 gagcagagca tcagagcagc tgatgcagtg gaggacctga ggtggttccg agccaatcac
1080 gggccgggca tggccatgaa ctggccgcag tttgaggagt ggtccgcaga cctgaatcga
1140 accctcagcc ggagagagaa gaagaaggcc actgacggcg tcaccctgac gggcatcaac
1200 cagacaggcg accagtctct gccgagtaag ccagcagca cccttaatgt ccgagcaac
1260 ccgcccagct ctgcgcagtc acagtcacgc tacaacccct tcgaggatga ggacgacag
1320 ggcagcaccg tcagtgagaa ggacgacact aaggccaaaa atgtgagcag ctacgagaag
1380

accagagct atcccaccga ctggtcagac gatgagtcta acaacccctt ctccctccag
1440
gatgccaatg gggactcgaa tccattcgac gacgacgcca cctcggggag ggaagtgcga
1500
gtccggggccc tgtatgacta tgaggggag gagcatgatg agctgagctt caaggtctggg
1560
gatgagctga ccaagatgga ggacgaggat gagcagggct ggtgcaaggg acgcttgagc
1620
aacgggcaag ttggcctata ccgggcaaat tatgtggagg cgatccagtg atgagtcggg
1680
gacagggccag cggggggacg gaggcgggcg gcccgaggag ctcagccagc cacgtgggca
1740
tccactcctt ttcctgcaag agatgatggg tccattgtct ttggcttcct ggtgttcctg
1800
gaaggcagat gagctgggca ttctgcctgg gactcggcac ctttcagagt gcagctggag
1860
ggatctgagc gcaggaagac gcagaacaac agaaatagcc gccctcctcc gccactgtg
1920
cctgttggcc tatcatagat ctctatgttc ttgactttgt ctctccttcc cgagtcaatg
1980
gtgggttaca ctgactctgt tccactgatt actctctctg acgagtgccat cacctgcaac
2040
ttaaataaac aagcttacat cccattttga gtgaagattt tgagggtttt aatttaaagg
2100
ctgtgtacag ttatactttt ttatacacct gttcatttct acttaaatga tggcacagat
2160
tgatgcgcac cagtcttgag gaaacgatct cctatttccc ttacctgtt actcagccac
2220
gccgtgtgta gggctagcct cagggtggag atgtttgagg aaaggaatta tgccagggaag
2280
gtgggacggg gttatgggag ggtttctatt gggaatgctt ttgtgtctt ttggcatctg
2340
aatggaagct ttacatagaa ccttaggtag aactccccca aatcgccata tttaaaaatt
2400
attttcactc tattcttgct taaaactgta ctcttttgca aattacaat tttatcactg
2460
attcagagtt aaaaagaaga ctaacttttc aagcaaatgc atctgtaaa atgctttaga
2520
ttagactgtc atgtctcagt gtctatctgt atatattatt tgatattcag agaattcaaa
2580
gcactcgtct actgttttaa tgagatttaa cagcttttaa cagttagttt cgtttgtaaa
2640
ctgcttgaag tctgtggcat tcaggcacac atctggctgg ccggctgggt ctctcccg
2700
gtccagtggg cctggggcct ctctgacgtg gtgctgtggt gaggagggt cgtcgtcacc
2760
agctgactgc tggctcgggt tctgaccggc ctttgtcctg gctccgtagc agaactgt
2820
aaaagtgcgc gcgtctttgc agtagttgca gatttcagtc gtcgtgttac ttgtgcacaa
2880
acagaagctg ggtcttaccg gcagacagag tgtctcgggc tgcccgaggc gcgccgggag
2940
caggtgtctg agccagagtt acgcgggggc cagcgggggc ggccgggggt gggggaaagt
3000

gggggaacct gtgtttcacg tgactcagca gtccccccg ccgtcaccag ctatgcattc
 3060
 actccgttto cagtgcagcag atgtcttgct tggaaagtgg acctgtgtct gtgtctgtcc
 3120
 tgagaactta ccagcagaaa tcttcatttc tgtgctacgg atttaccaaa aattgtcaag
 3180
 tcttttcag ttttaacagtt cctttacatg tgtagtattt gagggaaaaa atcaataaac
 3240
 agttgatctc gtgcatatgg aagtccttc gccatcatct gtcttcacgc ccacttcact
 3300
 tggcgggggg ggccctccctg gggcttacta gctttggagc tgggcaagat ccagggcaca
 3360
 ggaccctctg ccaaaaggcc acggccact gccctgccca aactggaggt tggggatttg
 3420
 aggcacctga gcccttggg gttcccttct ccccgagacc tg
 3462

<210> 6204

<211> 486

<212> PRT

<213> Homo sapiens

<400> 6204

Met	Ser	Val	Thr	Tyr	Asp	Asp	Ser	Val	Gly	Val	Glu	Val	Ser	Ser	Asp
1				5					10					15	
Ser	Phe	Trp	Glu	Val	Gly	Asn	Tyr	Lys	Arg	Thr	Val	Lys	Arg	Ile	Asp
			20					25					30		
Asp	Gly	His	Arg	Leu	Cys	Ser	Asp	Leu	Met	Asn	Cys	Leu	His	Glu	Arg
		35					40					45			
Ala	Arg	Ile	Glu	Lys	Ala	Tyr	Ala	Gln	Gln	Leu	Thr	Glu	Trp	Ala	Arg
		50				55					60				
Arg	Trp	Arg	Gln	Leu	Val	Glu	Lys	Gly	Pro	Gln	Tyr	Gly	Thr	Val	Glu
				70					75					80	
Lys	Ala	Trp	Met	Ala	Phe	Met	Ser	Glu	Ala	Glu	Arg	Val	Ser	Glu	Leu
				85					90					95	
His	Leu	Glu	Val	Lys	Ala	Ser	Leu	Met	Asn	Asp	Asp	Phe	Glu	Lys	Ile
			100					105						110	
Lys	Asn	Trp	Gln	Lys	Glu	Ala	Phe	His	Lys	Gln	Met	Met	Gly	Gly	Phe
			115				120					125			
Lys	Glu	Thr	Lys	Glu	Ala	Glu	Asp	Gly	Phe	Arg	Lys	Ala	Gln	Lys	Pro
			130				135				140				
Trp	Ala	Lys	Lys	Leu	Lys	Glu	Val	Glu	Ala	Ala	Lys	Lys	Ala	His	His
				150					155					160	
Ala	Ala	Cys	Lys	Glu	Glu	Lys	Leu	Ala	Ile	Ser	Arg	Glu	Ala	Asn	Ser
				165					170					175	
Lys	Ala	Asp	Pro	Ser	Leu	Asn	Pro	Glu	Gln	Leu	Lys	Lys	Gln	Gln	Asp
			180					185					190		
Lys	Ile	Glu	Lys	Cys	Lys	Gln	Asp	Val	Leu	Lys	Thr	Lys	Glu	Lys	Tyr
			195				200						205		
Glu	Lys	Ser	Leu	Lys	Glu	Leu	Asp	Gln	Gly	Thr	Pro	Gln	Tyr	Met	Glu
			210				215				220				
Asn	Met	Glu	Gln	Val	Phe	Glu	Gln	Cys	Gln	Gln	Phe	Glu	Glu	Lys	Arg
				230					235					240	
Leu	Arg	Phe	Phe	Arg	Glu	Val	Leu	Leu	Glu	Val	Gln	Lys	His	Leu	Asp

```

                245                250                255
Leu Ser Asn Val Ala Gly Tyr Lys Ala Ile Tyr His Asp Leu Glu Gln
                260                265                270
Ser Ile Arg Ala Ala Asp Ala Val Glu Asp Leu Arg Trp Phe Arg Ala
                275                280                285
Asn His Gly Pro Gly Met Ala Met Asn Trp Pro Gln Phe Glu Glu Trp
                290                295                300
Ser Ala Asp Leu Asn Arg Thr Leu Ser Arg Arg Glu Lys Lys Lys Ala
305                310                315                320
Thr Asp Gly Val Thr Leu Thr Gly Ile Asn Gln Thr Gly Asp Gln Ser
                325                330                335
Leu Pro Ser Lys Pro Ser Ser Thr Leu Asn Val Pro Ser Asn Pro Ala
                340                345                350
Gln Ser Ala Gln Ser Gln Ser Ser Tyr Asn Pro Phe Glu Asp Glu Asp
                355                360                365
Asp Thr Gly Ser Thr Val Ser Glu Lys Asp Asp Thr Lys Ala Lys Asn
370                375                380
Val Ser Ser Tyr Glu Lys Thr Gln Ser Tyr Pro Thr Asp Trp Ser Asp
385                390                395                400
Asp Glu Ser Asn Asn Pro Phe Ser Ser Thr Asp Ala Asn Gly Asp Ser
                405                410                415
Asn Pro Phe Asp Asp Asp Ala Thr Ser Gly Thr Glu Val Arg Val Arg
420                425                430
Ala Leu Tyr Asp Tyr Glu Gly Gln Glu His Asp Glu Leu Ser Phe Lys
435                440                445
Ala Gly Asp Glu Leu Thr Lys Met Glu Asp Glu Asp Glu Gln Gly Trp
450                455                460
Cys Lys Gly Arg Leu Asp Asn Gly Gln Val Gly Leu Tyr Pro Ala Asn
465                470                475                480
Tyr Val Glu Ala Ile Gln
                485

```

<210> 6205

<211> 926

<212> DNA

<213> Homo sapiens

<400> 6205

```

nngcgccctcc canagagaat agggcccagc ttcaatggag gctgtggaga gatggagaag
60
tggggtgaag attttggaga atctcggggg agagcaaggg aagggaagga gtttccgcac
120
agccagaagt tgctgttcat ggaaacttcg gccaaactga accaccaggt gtcggaggtg
180
ttcaatacac tggcccaaga gctactgcag agaagcgacg aggagggcca ggctctacng
240
ggggaagaca cccctgcct gggccatggc cagctctagg tggattctga ttcactgtca
300
atgctggggt gctcccgagc cetagatgtt cctggaagtt ggcccccttt atgaaaacca
360
cttccacacg ccagtgggaa ctgccagagg aagatctggc gtcacatggc tcccaggaaa
420
gtgctgtgcc ctatcccccac tgataccatc tgattcccc atgectgtgc ctgttccacc
480

```


tggacgggtgg cccctcagc ctggcagcct ctggacagag aggaaggaag gatttgaaaa
 540
 gtccccgcag cacagcgacg gtgggaagat gccttacgct tgatcttgat gggggcactg
 600
 gcctggagcc tggggccacc tgcttctggg ggggtgggga gcaggccaga tggaggtggt
 660
 ggtgccagga agaaatggag cgatgactga ctgtgggggtg gggccaggat ttcccatctt
 720
 tggatgaagt gccctggga agggcagctg ggggcagtgg cggcagttcc cttccatggt
 780
 ctcccgctg gcaatgtggt gaagctgagt tctgtgctca tgagcaggaa gattctgaga
 840
 catttcgcct gagatataag ttgtactgct tatgcagttt ttctccaaa aattaaattg
 900
 cttttgacaa tctgaaaaaa aaaaaa
 926

<210> 6206

<211> 92

<212> PRT

<213> Homo sapiens

<400> 6206

Xaa	Arg	Leu	Pro	Xaa	Arg	Ile	Gly	Pro	Ser	Phe	Asn	Gly	Gly	Cys	Gly
1				5				10				15			
Glu	Met	Glu	Lys	Trp	Gly	Glu	Asp	Phe	Gly	Leu	Ser	Arg	Gly	Arg	Ala
			20					25				30			
Arg	Glu	Gly	Lys	Glu	Phe	Ala	Asp	Ser	Gln	Lys	Leu	Leu	Phe	Met	Glu
			35				40					45			
Thr	Ser	Ala	Lys	Leu	Asn	His	Gln	Val	Ser	Glu	Val	Phe	Asn	Thr	Val
			50			55				60					
Ala	Gln	Glu	Leu	Leu	Gln	Arg	Ser	Asp	Glu	Glu	Gly	Gln	Ala	Leu	Xaa
65					70					75				80	
Gly	Glu	Asp	Thr	Pro	Cys	Leu	Gly	His	Gly	Gln	Leu				
			85						90						

<210> 6207

<211> 1384

<212> DNA

<213> Homo sapiens

<400> 6207

nntgatcaga ggtcctgggt gtctggggaa gctgggctgt gcgtgtatgc gtctaccatg
 60
 tgggggtgccc tgtgagtgtg ctggggcgctc tgcagtgaag gcctcctgag accactccac
 120
 ggaaacaccg ggaatccctg cagctgagcc tgtctctcac gggaccggga agctggagag
 180
 agccccaacc ctgcccgctg gggccgagct ccctgctcct gcagcagtc cgtgccccac
 240
 actctgagtc tgccttatcc acagctgctg ggcctctctg tggccacccat ggtgactctt
 300
 acctacttcg gggcccaact tgctgtcatc cgccgagcgt ccctggagaa gaacccgtac
 360

caggctgtgc accaatgggc cttctctgcg gggttgagcc tgggtgggacct cctgactctg
 420
 ggagccgtgc tgagcgctgc agccaccgtg agggaggccc agggccctcat ggcagggggc
 480
 ttccctgtgct tctccctggc gttctgygca cagggtgcagg tgggtgtctg gagactccac
 540
 agccccaccc aggtggagga cgccatgctg gacacctacg acctgggtata tgagcaggcg
 600
 atgaaaggta cgtcccacgt cgggcggcag gagctggcgg ccattccagga cgtgtttctg
 660
 tgctgtggga agaagttctc ttccagccgt ctggggagca cagaggctga cctgtgtcag
 720
 ggagaggagg cggcgagaga ggaactgcctt caggggcatcc ggagcttctt gaggacacac
 780
 cagcaggctg cctccagcct gaccagcatc ggccctggccc tcacgggtgtc cgccttgtct
 840
 ttccagctcct tctgtgtgtt tgccatccgc tgtggctgca gcttgaccg caagggcaaa
 900
 tacacctga cccacagagc atgtggcgcg cagccccagg agcccgacct cttgagatgc
 960
 tccccgggtg gaccacacac ttgtctccac tccgaagcag ttgctatttg tccaagagga
 1020
 tgctcgggta gtcttcggtg gctgcaggag agcgtatgctg cgcctctgcc cctctcctgc
 1080
 caccctggctg cccacagagc tctccagggc agaagtcgcg gtgggctcag tgggtgcctt
 1140
 gagcgggggc tctcagactg acgtcaggcc ttgggtgggtg gcaactctac ctgagggtct
 1200
 cggggaagca tctgcctcca ggaccattca ggctgttgac aagtcaactc ctcatggctg
 1260
 taggactgag gttcccaagt ccttgtccct ggtcctgtgg tccctccacc ttcaaaccag
 1320
 caatgggtgca ttgagcaaat tgtggtcaaa tatacatcac atcaaattta ccatctttaa
 1380
 aaaa
 1384

<210> 6208

<211> 290

<212> PRT

<213> Homo sapiens

<400> 6208

Met Val Thr Leu Thr Tyr Phe Gly Ala His Phe Ala Val Ile Arg Arg
 1 5 10 15
 Ala Ser Leu Glu Lys Asn Pro Tyr Gln Ala Val His Gln Trp Ala Phe
 20 25 30
 Ser Ala Gly Leu Ser Leu Val Gly Leu Leu Thr Leu Gly Ala Val Leu
 35 40 45
 Ser Ala Ala Ala Thr Val Arg Glu Ala Gln Gly Leu Met Ala Gly Gly
 50 55 60
 Phe Leu Cys Phe Ser Leu Ala Phe Xaa Ala Gln Val Gln Val Val Phe
 65 70 75 80
 Trp Arg Leu His Ser Pro Thr Gln Val Glu Asp Ala Met Leu Asp Thr

```

      85              90              95
Tyr Asp Leu Val Tyr Glu Gln Ala Met Lys Gly Thr Ser His Val Arg
      100              105              110
Arg Gln Glu Leu Ala Ala Ile Gln Asp Val Phe Leu Cys Cys Gly Lys
      115              120              125
Lys Ser Pro Phe Ser Arg Leu Gly Ser Thr Glu Ala Asp Leu Cys Gln
      130              135              140
Gly Glu Glu Ala Ala Arg Glu Asp Cys Leu Gln Gly Ile Arg Ser Phe
      145              150              155              160
Leu Arg Thr His Gln Gln Val Ala Ser Ser Leu Thr Ser Ile Gly Leu
      165              170              175
Ala Leu Thr Val Ser Ala Leu Leu Phe Ser Ser Phe Leu Trp Phe Ala
      180              185              190
Ile Arg Cys Gly Cys Ser Leu Asp Arg Lys Gly Lys Tyr Thr Leu Thr
      195              200              205
Pro Arg Ala Cys Gly Arg Gln Pro Gln Glu Pro Ser Leu Leu Arg Cys
      210              215              220
Ser Gln Gly Gly Pro Thr His Cys Leu His Ser Glu Ala Val Ala Ile
      225              230              235              240
Gly Pro Arg Gly Cys Ser Gly Ser Leu Arg Trp Leu Gln Glu Ser Asp
      245              250              255
Ala Ala Pro Leu Pro Leu Ser Cys His Leu Ala Ala His Arg Ala Leu
      260              265              270
Gln Gly Arg Ser Arg Gly Gly Leu Ser Gly Cys Pro Glu Arg Gly Leu
      275              280              285
Ser Asp
      290

<210> 6209
<211> 2269
<212> DNA
<213> Homo sapiens

<400> 6209
ggcaggctgg gaattagcca gcaagatgc cgaatgaggtc atcaagcaga aggaaatctc
60
accacaccca ggtggactta caaggctgtg tgtgccctgg gcagggtgga catgtccagg
120
gcggggaaac cctggatatt tcactctgaa gtggtttctt gaaagaaac tcaactgact
180
caggccatga gcattcttta cactgaagca agcatctcct cacaagtgcc tctacaagt
240
cactagagtc atattcaaca ttacaaatg cagtgtact taaatttta agcactgagg
300
gaccaagaaa tgggctgac aagtecttg cactcactg ttaagagcca ggatttacag
360
atcaatgact gttctattg tccaagaaat aattttctag caaagcatc acactttatt
420
aaatttcaca gccagcagcg ctttcagtcc acaacagatt tctcagagga aacatggata
480
ttttgcgtag gcagaaacag tgaggagtac aaagcaaagc tataaatacc accaatgggt
540
ctgctatgtg catccgatat ttttgcctgc atctgaaata ctgcaagggc ttaaccattc
600

```

aaacaccgca tgacaacgaa cccagtggaac tgtgaaactc aggctgcagg agggtggtt
660
gtcagctggt gaagccaactt ggctttggac tccatcggtc atctttacgc aagagcagag
720
atgaacggtg ggtcacggct atgacgtgaa ggagaaagag aagacacact cacagaacag
780
gatggagagc ttcaataatt ttttaaagc ttggaaccac cacctgcttt cccaatcttg
840
ggctgggggtt ttgacttttc ttgatcatca atctgacttg aagcctttta ccagttacaa
900
tacagacatg gccagatgac ctgcttgtta ggaaggctgt gccatctttt gtttctgaaa
960
cagtcttate tcatctgtcc actgctgtctc tggaaagggtc aggaccagca ctgcagacac
1020
tcggccatgc tgtgagtgag cccagacata cgcgtggaat ctgaacaccc aacgctggcg
1080
ttcccgtgcc agtctgaggg ctgcggctcc agcgcctgtc cacacacacg cctgcctctc
1140
tctagtctct ccactgcttg gcttctctgc ttgcaaaacc cagcatgtga aatgaggaca
1200
cctccacgga gacccttccg agcagggagg ttctcatcaca ccttctgttc ttgccaaggga
1260
gtctatcgcc tcatccacaa catctgcttg cgggagaaac agcaaagtgt tccctctgag
1320
ggaaggactg aggagggtct tggtagtcac agattgagac acatttctgc gaaaactggt
1380
attatgttct tgcacaggaa aacaaagtgt taaaaatatt cccatctctc ctccaaactcc
1440
cttctgtcac acagtcccaa gtgaacttga aaaagggtcca gaagtgaaca cttaggggtgc
1500
atttaccttt ctctgaaga tgggaagaca caggatgct tgcctaaaat atctgccgag
1560
aggtgagcag ctgtggcctg ggaaggcgct tgctcttctc ccacatcagc cagaaggcag
1620
atcacacact cagagcaccc tacagaaccc agatggcgaa tcaaaagtga gaaaagaac
1680
accgcttcc tcatagtca tttaggaaga taagatagca tgggacaggg agaacaacca
1740
tgttctgaat ggagactttt tcagggtccc aaacttggga cagtgagtgt gaccccat
1800
cctgtggttt ctgctgacc cttctaagcc agagggtgaga aaacaactcc cagagaccac
1860
gactctcacc ctggaggtta cctgttcccc tgcaggtgtg gctctctgac aacccttagg
1920
cagggtggg ctccagcttt tggaaagcaac cctacctagc tggcccccca agcattaaga
1980
agcttccctg atggggccat gttttgggtc ccttttaagc cctcagtcac aatgtacctt
2040
ctgagcttgt cctactatcc agatgatttt ctctctgagt tgcaatactg ctcaatttag
2100
gtggtaacct gtgttcattc aagctctgga agtgtggaag ggaacttaac cattgagttt
2160
ctgtgaagta ttttccatc ctaaaatccc tgagagtgaa actgttgaat catgtcact
2220

ttcttcacat acatactctt ggactatggg gaccaagtct gttgaattc
2269

<210> 6210

<211> 165

<212> PRT

<213> Homo sapiens

<400> 6210

Met	Gly	Ile	Phe	Leu	Thr	Leu	Cys	Phe	Pro	Val	Gln	Lys	His	Asn	Thr
1				5					10					15	
Ser	Phe	Arg	Arg	Asn	Val	Ser	Gln	Ser	Val	Thr	Thr	Lys	Ala	Leu	Leu
			20					25					30		
Ser	Pro	Ser	Leu	Arg	Gly	Thr	His	Leu	Leu	Phe	Leu	Pro	Gln	Ala	Asp
		35				40						45			
Val	Val	Asp	Glu	Ala	Ile	Asp	Ser	Leu	Ala	Arg	Thr	Lys	Gly	Val	Met
	50				55					60					
Lys	Pro	Pro	Cys	Ser	Glu	Gly	Ser	Pro	Trp	Arg	Cys	Pro	His	Phe	Thr
65					70					75				80	
Cys	Trp	Val	Leu	Gln	Ala	Arg	Lys	Pro	Gly	Ser	Gly	Gly	Thr	Arg	Glu
				85					90					95	
Arg	Gln	Ala	Cys	Val	Trp	Thr	Ser	Ala	Gly	Ala	Ala	Ala	Leu	Arg	Leu
			100					105					110		
Ala	Arg	Glu	Arg	Gln	Arg	Trp	Val	Phe	Arg	Phe	His	Ala	Tyr	Val	Trp
	115						120					125			
Ala	His	Ser	Gln	His	Gly	Arg	Val	Ser	Ala	Val	Leu	Val	Leu	Thr	Leu
	130				135					140					
Pro	Glu	Gln	Gln	Trp	Thr	Asp	Glu	Ile	Arg	Leu	Phe	Gln	Lys	Gln	Arg
145					150					155				160	
Trp	Pro	Gln	Pro	Ser											
					165										

<210> 6211

<211> 2163

<212> DNA

<213> Homo sapiens

<400> 6211

ngccgccccg ctcagcccaa catggcgatg cacaacaagg cggcgccgcc gcagatcccg
60
gacacccggc gggagctggc ggagctcgtg aaggggaagc aggagctggc ggaacattg
120
gcaaatattg agcgacagat ctatgctttt gagggaaagt acctggaaga cactcagatg
180
tatggcaata ttattcgtgg ctgngatcgt gtatctgacc aaccannaaa aaactccaat
240
agcaaaaatg atcgaaggaa ccggaagttt aagggaagctg agcggctctt cagtaaatcc
300
tcggttacct cagcagctgc agtaagtgc ttggcaggag ttcaggacca gctcattgaa
360
aagagggagc caggaagtgg gacggaaggt gacacttctc cagacttcca caatcaggaa
420
aatgagccca gccaggagga cctgaggat ctggatggat ctgtgcaggg agtgaacac
480

agaaggctg cttcttctac ttcctcaggg agtcaccaca gcagccataa aaagcgaag
540
aataaaaaacc ggcacagccc gtctggcatg ttgattatg actttgagat tgatctgaag
600
ttaaacaataa aaccacgagc tgactattag aagacacatt agtgcagaag ctccaggct
660
gtagagccct gcttcctctc tctgacctca caaagataaa catccttcac ctgagttcgt
720
ggccatccac ctctgctctc ccagaccagc tgcctgtgac tttgagtagt ttgttctaaa
780
tgtggtgaca aacaagtcac ttctgtaaga cattgggtct tactttatgt gatttttagt
840
aacagaactg caggaagatc aagacaatgt tgtaatcccg gcaagttgct aactgtgcgt
900
ttctcccttc ttagaatgaa tgtctcccc aaaactggct ggcaccagct tcctctgtga
960
tacccttcaa gaaatgttct ctggttttgt tttatgctga aagtagaaca caagtccat
1020
ttcagatgga ggctgtaaat atctggcatt ttcttatatt gttttatgtt ttcttgtttt
1080
tctcttgttg tttttatctt attttctttg gggttttttt gtaatgcctt tgtacagctc
1140
atactttctc gctgacatat ctgatcatct ctttcatgca gttgccataa ttcataactg
1200
aaaataatct ggtttatcat aagtaaaatg ggaactgtgc ctctgttttt tgcaggggga
1260
ggtaaaagagt gtttagtaat tacctatctt aaactttctt gagggtgtag tagattcatg
1320
ttcaagggaac aggaaaaaatg gaaaaacata agtttaaatc agttcttttt aaataacttt
1380
ttattctttt gtataataa aatttcacag gcttcaaatt ctcatgcttt acttttaaac
1440
ccgagattgt ttttttctact tatttattca tatcatgctt tatggaaatt tctttttctg
1500
tatttttctt ctttctgtgtt attcacctga ttaaatattg ctctaaaaat caccatggca
1560
tatggaaagt ctcaaaatta taccaaaagt gataacttat gtcgttctta agtggagtga
1620
aaggatagca tcagtgatag ccagtgttgc ccaccaggtc tccctttctt ggaggggctg
1680
ttggggctga ggaatctgct agtaatcgtt acctgcctct agtgctgtgt tgaacttgcg
1740
acagggtctg gctgcacatt ggaatcacct gagaagcttt aaaatactca tgcctggatc
1800
ccatccctag agactggggg acagcctagt tattgggaat ttcttttaaa gagtctcctg
1860
gattctgata agaagccagg ttgagaacca ctacattaga agactgaatg gtttaattta
1920
catcctatgt tatgattggt ccaagggata agattttggg tctaaccttt ctttctactc
1980
tagtttagtca tagtctctga cttatgccta tatctttgta agaaatagta tgtttcattt
2040
gtgatagtat tggtagggct gaatatggat ggcatctact gtaaaacaag tctaccttgt
2100

cagatgtgca aaagctttca ctctgttctt caaataaact ttgtgggtt tttttaaaaa
 2160
 aaa
 2163

<210> 6212
 <211> 209
 <212> PRT
 <213> Homo sapiens

<400> 6212
 Xaa Arg Pro Pro Gln Pro Asn Met Ala Met His Asn Lys Ala Ala Pro
 1 5 10 15
 Pro Gln Ile Pro Asp Thr Arg Arg Glu Leu Ala Glu Leu Val Lys Gly
 20 25 30
 Lys Gln Glu Leu Ala Glu Thr Leu Ala Asn Leu Glu Arg Gln Ile Tyr
 35 40 45
 Ala Phe Glu Gly Ser Tyr Leu Glu Asp Thr Gln Met Tyr Gly Asn Ile
 50 55 60
 Ile Arg Gly Trp Xaa Ser Val Ser Asp Gln Pro Xaa Lys Asn Ser Asn
 65 70 75 80
 Ser Lys Asn Asp Arg Arg Asn Arg Lys Phe Lys Glu Ala Glu Arg Leu
 85 90 95
 Phe Ser Lys Ser Ser Val Thr Ser Ala Ala Val Ser Ala Leu Ala
 100 105 110
 Gly Val Gln Asp Gln Leu Ile Glu Lys Arg Glu Pro Gly Ser Gly Thr
 115 120 125
 Glu Ser Asp Thr Ser Pro Asp Phe His Asn Gln Glu Asn Glu Pro Ser
 130 135 140
 Gln Glu Asp Pro Glu Asp Leu Asp Gly Ser Val Gln Gly Val Lys Pro
 145 150 155 160
 Gln Lys Ala Ala Ser Ser Thr Ser Ser Gly Ser His His Ser Ser His
 165 170 175
 Lys Lys Arg Lys Asn Lys Asn Arg His Ser Pro Ser Gly Met Phe Asp
 180 185 190
 Tyr Asp Phe Glu Ile Asp Leu Lys Leu Asn Lys Lys Pro Arg Ala Asp
 195 200 205
 Tyr

<210> 6213
 <211> 1160
 <212> DNA
 <213> Homo sapiens

<400> 6213
 acggtgaag ggaaggggaa agaggtcacc aaggcgagag gtgtccaggc cggagccagg
 60
 ggccccactg ttgggatgct ggctgcagtg gggcgcccca agcccaggtc cctctgtctt
 120
 tctctttcga ctttgcagct gtacttgttt tgctcctcta cccgcaggag ctgacatgga
 180
 cccaaatcct cgggcccgcc tggagcgcca gcagctccgc ctccgggagc ggcaaaaatt
 240

cttogaggac attttacagc cagagacaga gtttgtcttt cctctgtccc atctgcacct
 300
 cgagtcgcag agacccccca taggtagtat ctcattccat gaagtgaatg tggacacact
 360
 ggagcaagta gaacttattg accttgggga ccgagatgca gcagatgtgt tcttgccctg
 420
 cgaagatcct ccaccaaccc cccagtcgtc tggggtggac aaccatttgg aggagctgag
 480
 cctgcccngt gcctacatca gacaggacca catctaggac ctccctcctc tctcctccg
 540
 actcctccac caacctgcat agcccaaacc caagtatga tggagcagat acgccccttg
 600
 cacagtcgga tgaagaggag gaaaggggtg atggaggggc agagcctgga gcctgcagct
 660
 agcagtgggc cctgcctac agactgacca cgctggctat tctccacatg agaccacagg
 720
 cccagccaga gcctgtcggg agaagaccag actcctttact tgcagtaggc accagaggtg
 780
 ggaaggatgg tgggattgtg tacctttcta agaattaacc ctctcctgct ttactgctaa
 840
 ttttttctg ctgcaacct cccaccagtt ttggcttac tccctgagata tgatttgcaa
 900
 atgaggagag agaagatgag gttggacaag atgccactgc tttcttagc actctccct
 960
 ccctaaacc atcccgtagt cttctaatac agtctctcag acaagtgtct ctataggag
 1020
 gtgaactcct taactcatca agtaagggtg tactcaagcc atgctgcctc cttacatcct
 1080
 ttttggaca gagcacggt taaataataa actaataata atatgccaac aaaaaaaaaa
 1140
 aaaaaaaaaa aaaaaaaaaa
 1160

<210> 6214

<211> 101

<212> PRT

<213> Homo sapiens

<400> 6214

Pro Trp Gly Pro Gly Cys Ser Arg Cys Val Leu Ala Leu Arg Arg Ser
 1 5 10 15
 Ser Thr Asn Pro Pro Val Val Trp Gly Gln Pro Phe Gly Gly Ala
 20 25 30
 Glu Pro Ala Xaa Cys Leu His Gln Thr Gly Pro His Leu Gly Pro Pro
 35 40 45
 Pro Pro Pro Pro Pro Thr Pro Pro Pro Thr Cys Ile Ala Gln Ile Gln
 50 55 60
 Val Met Met Glu Gln Ile Arg Pro Trp His Ser Arg Met Lys Arg Arg
 65 70 75 80
 Lys Gly Val Met Glu Gly Gln Ser Leu Glu Pro Ala Ala Ser Ser Gly
 85 90 95
 Pro Leu Pro Thr Asp
 100

<210> 6215
 <211> 651
 <212> DNA
 <213> Homo sapiens

<400> 6215
 ncagctccat aatccctcc agaacattct gcaacagccc catgatcccc tctagaacat
 60
 tccacaatag cctcacaggt cccctgtaga acattccacc acagccccat gatccccctg
 120
 ctctctcagag catgtggccg ccagccccag gagccccgcc tcttgagatg ctccccagggt
 180
 ggacccacac attgtctcca ctccgaagca gttgctattg gtccaagagg atgtcgggt
 240
 agtcttcgggt ggctgcagga gagcgatgct ggcctctgc cctctctctg ccacctgggt
 300
 gccccacagag ctctccaggg cagaagtgcg ggtgggtcga gtgggtgccc tgagcgggg
 360
 ctctcagact gacgtcaggc ctgtgtgggc tgcactctca cctggaggct ccggggaagc
 420
 atctgcctcc aggaccattc aggtgtgtga caagtcaact cctcatgggt gtaggactga
 480
 ggttcccaag tccttgtccc tggctctgtg gtccctccac ctcaaacca gcaatggtgc
 540
 attgagcaaa ttgtgtgcaa atatacatca catcaaatct accatcttaa ccattgttaa
 600
 gtgtatgggt tgtggcatta aatacattca cattgtgtgt caaccatcac c
 651

<210> 6216
 <211> 87
 <212> PRT
 <213> Homo sapiens

<400> 6216
 Met Ile Pro Leu Leu Leu Arg Ala Cys Gly Arg Gln Pro Gln Glu Pro
 1 5 10 15
 Ser Leu Leu Arg Cys Ser Gln Gly Gly Pro Thr His Cys Leu His Ser
 20 25 30
 Glu Ala Val Ala Ile Gly Pro Arg Gly Cys Ser Gly Ser Leu Arg Trp
 35 40 45
 Leu Gln Glu Ser Asp Ala Ala Pro Leu Pro Leu Ser Cys His Leu Ala
 50 55 60
 Ala His Arg Ala Leu Gln Gly Arg Ser Arg Gly Gly Leu Ser Gly Cys
 65 70 75 80
 Pro Glu Arg Gly Leu Ser Asp
 85

<210> 6217
 <211> 2955
 <212> DNA
 <213> Homo sapiens

<400> 6217

ngcagcgggg aggcggggagc cgcggggcggg gccgcccggc gaggcgtggg ggctgcgggg
60
cgggcccac cgtgggggcg acttgagcgt tgaggggcgg cggggaggcg agccaccatg
120
ttcagccagc agcagcagca gcagctccag caacagcagc agcagctcca gcagttacag
180
cagcagcagc tccagcagca gcaattgcag cagcagcagt tactgcagct ccagcagctg
240
ctccagcagt cccaccaca gggcccgttg cccatggctg tcagccgggg gctccccccg
300
cagcagccac agcagccgct tctgaatctc cagggcacca actcagcctc cctcctcaac
360
ggctccatgc tgcagagagc ttgtcttcta cagcagttgc aaggactgga ccagtttgca
420
atgccaccag ccacgtatga cactgccggt ctccaccatgc ccacagcaac actgggtaac
480
ctccaggagg atggcatggc atccccaggc ctgcgagccc ccagcctcac acccccacaa
540
ctggccactc caaatttgca acagttcttt ccccaggcca ctgcceagtc cttgtgggga
600
cctcctcctg ttgggggtccc catgaacctt tcccagttca acctttcagg acggaacccc
660
cagaaacagg cccggacctc ctccctctacc accccaatc gaaaggatcc ttcttctcag
720
acaatgcctg tggaaagcaa gtcagacccc ccagaggggt ctgaggaagc cgcagagccc
780
cggatggaca caccagaaga ccaagattta ctgccctgcc cagaggacat cgccaaggaa
840
aaacgcactc cagcacctga gcctgagcct tgtgaggcgt ccgagctgcc agcaaagaga
900
ttgaggagct cagaagagcc cacagagaag gaacctccag ggcagttaca ggtgaaggcc
960
cagccgcagg cccggatgac agtaccgaaa cagacacaga caccagacct gctgcctgag
1020
gccctgggaag cccaagtgcct gccacgattc cagccacggg tcttcgaggt ccaggcccag
1080
gtgcagtcac agactcagcc gcggatacca tccacagaca cccaggtgca gccaaagctg
1140
cagaagcagg cgcaaacaca gacctctcca gagcacttag tgctgcaaca gaagcaggtg
1200
cagccacagc tgcagcagga ggcagagcca cagaagcagg tgcagccaca ggtacagcca
1260
cagggcacatt cacagggccc aaggcaggtg cagctgcagc aggaggcaga gccgtgaag
1320
caggtgcagc cacaggtgca gcccaggcca cattcacagc cccaaggca ggtgcagctg
1380
cagctgcaga agcaggtcca gacacagaca tatccacagg tccacacaca ggcacagcca
1440
agcgtccagc cacaggaagc tcctccagcg caggtgtcag tacagccacc agagcagacc
1500
catgagcagc ctcacaccca gccgcaggtg tcgttgctgg ctccagagca aacaccagtt
1560
gtgggttcag tctgcgggct ggagatgcca cctgatgcag tagaagctgg tggaggcatg
1620

gaaaagacct tgcagagcc tgtgggcacc caagtacga tggaagagat tcagaatgag
 1680
 tcggcctgtg gcctagatgt gggagaatgt gaaaacagag cgagagagat gccaggggta
 1740
 tggggcgccg ggggctccct gaaggtcacc attctgcaga gcagtgcagc ccgggccttt
 1800
 agcactgtac ccttgacacc tgtcccccgc cccagtgaact ccgtctcctt cacccttgcg
 1860
 gctaccagca ctccctctaa gcaggccctc cagttcttct gctacatctg caaggccagc
 1920
 tgctccagcc agcaggagtt ccaggaccac atgtcggagc ctcagcacca gcagcggcta
 1980
 ggggagatcc agcacatgag ccaagcctgc ctctgttccc tgetgcccgt gccccgggac
 2040
 gtctctggaga cagaggatga ggagcctcca ccaaggcgct ggtgcaaac ctgccagctc
 2100
 tactacatgg gggacctgat ccaacaccgc aggacacagg accacaagat tgccaacaa
 2160
 tccttgagac cctctgcac cgtttgcaac cgctacttca aaaccctcgc caagtttgtg
 2220
 gagcacgtga agtcccaggg gcataaggac aaagccaagg agctgaagtc gcttgagaaa
 2280
 gaaatttctg gccaaagtga ggaccacttc attacagtgg acgctgtggg ttgcttcgag
 2340
 ggtgatgaag aagaggaaga ggatgatgag gatgaagaag agatcgaggt tgaggaggaa
 2400
 ctctgcaagc aggtgaggtc cagagatata tccagagagg agtggaaagg ctcggagacc
 2460
 tacagcccc atactgcata tgggtgtggc ttctgtgtgc ccgtgatggg ctatatctgc
 2520
 cgcactctgcc acaagttcta tcacagcaac tcaggggcac agctctccca ctgcaagtcc
 2580
 ctggggcact ttgagaacct gcagaaatac aaggcgggcca agaaccaccg cccaccacc
 2640
 cgacctgtga gccgcgggtg cgcaatcaac gcccggaacg ctttgacagc cctgttcacc
 2700
 tccagcggcc gccaccctc ccagcccaac acccaggaca aaacaccag caaggtgacg
 2760
 gctcgacctt cccagccccc actacctcgg cgetcaaccc gcctcaaac ctgatagagg
 2820
 gacctccctg tccctggcct cctgggtccc agatctgcta atgcttttta ggagctctgc
 2880
 tggaaaacttt gacatgggtc atgtttttac tcaaaatcca ataaaacaag gtagtttggc
 2940
 aaaaaaaaaa aaaaa
 2955

<210> 6218

<211> 133

<212> PRT

<213> Homo sapiens

<400> 6218

Val Arg Ser Arg Asp Ile Ser Arg Glu Glu Trp Lys Gly Ser Glu Thr

```

      1           5           10           15
Tyr Ser Pro Asn Thr Ala Tyr Gly Val Asp Phe Leu Val Pro Val Met
      20           25           30
Gly Tyr Ile Cys Arg Ile Cys His Lys Phe Tyr His Ser Asn Ser Gly
      35           40           45
Ala Gln Leu Ser His Cys Lys Ser Leu Gly His Phe Glu Asn Leu Gln
      50           55           60
Lys Tyr Lys Ala Ala Lys Asn Pro Ser Pro Thr Thr Arg Pro Val Ser
      65           70           75           80
Arg Arg Cys Ala Ile Asn Ala Arg Asn Ala Leu Thr Ala Leu Phe Thr
      85           90           95
Ser Ser Gly Arg Pro Pro Ser Gln Pro Asn Thr Gln Asp Lys Thr Pro
      100           105           110
Ser Lys Val Thr Ala Arg Pro Ser Gln Pro Pro Leu Pro Arg Arg Ser
      115           120           125
Thr Arg Leu Lys Thr
      130

```

<210> 6219

<211> 2495

<212> DNA

<213> Homo sapiens

<400> 6219

```

tttttttttt ttttttcgcg gtggaggatc aggttttaatg gtcactatga ggggtatcgta
60
catcggtcca agcccgcccc cggcccccagc cctccctcag ctgggaacac agccaggtgc
120
cctcagaccc ctggctctgc acaagggggg cctgcccccct cgccccagnn ctatatacac
180
gacagcccat cctgctggcc gtggacaaaa gctgggagct ccntgtgccc agtcaggagc
240
ccctacagtc caccagctgc gcggccgggt ccagggngcc cactgtggtg ccagcgagtt
300
tctcaaaacc cagggccccag cccagcnnnt gggcccccctg caagccccag gcctgtgtgc
360
tggaatggag cctccacact gaggctggta aaagctgaac tcaacagcag caatgagagt
420
gctgggtggg cttgggggga tggggagcag gcccccacca gagcctcctc tgaaggaggg
480
gacgctgcgc ccttccttcc tgctgccagc actgccctca cgggtccggc cgccggctga
540
ggcttaagta agcagggatg ggggggtggc agaggagtgt aagtgaagc acagacagtc
600
ggagactcgg ccagtgtaga cagaccaga gactcggcc a gtgtagacag agccaggctg
660
ggcagcccg cgacgctggc cccacgcaca cgggccaccc tgggtctggt gatcgatacg
720
gcaggggagg ggtgggcagg gagggctcctg aacacatgtg ggctgctggg ctgctggggc
780
gggggtgccta cactgtaact agcagcatag tgcttaacta gttaacaaga aatgctgctt
840
cccttgaat tgtttcgggg gtgtagaaat tgcacttatt tctatgaacc ccatggaggg
900

```

atgcccacag ctgagcctcc aggcgaggca tggcaggcca gtgcctggcc gctgagcatc
960
cacggggccac agggcgggat cctcccggcc cccagggaact gcagcctctg ogggccacggg
1020
tgacgcgagg accggaaccc acagggggaa cctgagcaac gtctgagggt ccttgaagtg
1080
gtctcaggcg agaccggagc cacacagtcc cggggagcac gaggcgggcc agcccagggt
1140
cccggtgcag agggagtggc ctgatggtga ctggcgggag gcctctgccc ctacaggac
1200
gtcgtcaaaag tccagcagct tcgagtgcgt gcggctcttc cacaggcgat acaaccggaa
1260
gtcaaagtac gtctcgatca tctgcttccc ttgggctgag agctccaggg gtgactcgaa
1320
ggtgacccta taaggagtca tgagggtcct gaggttctgg aacagcttct ctccattggg
1380
gttcccaga atgtagcagc ccatgatgtg gatgacgttc ggctctgggt tcaacttggc
1440
catcaggcgg ctccagcgcct tccagaagtg aatcatgtcc tcttcttctt ccactttggc
1500
aaagggtggc accttgttct tgaggagata gaggtgtcca ggacctcctt ggacagaaat
1560
cagcatcttc cagatcttgg ctcccttgtg gtacagcttc agcttctctt ctatctctc
1620
aaggatgtcc tcgaagggtg cgtgctcatg gtcgtagagg atgggggatga tggaggggtc
1680
atcccgcgcg atgatatgtg ggatgtactc agccttgggc accttggagg aaatgagcat
1740
gacctttggt ggcacgaagc ctctgggtgc gcaggccaca gcctccaggc ccttctcagt
1800
gtcccgagtc aggtctctga aggcctcgtc cagcgtgcag tgggagctct gcaggtcact
1860
gtctgtctcg gagtctggg aagtgtcggc tttcatgggg gtgggggtgc tccaggaccg
1920
gtgaaagctc cgctcgcgcg ctacagcaac gtctgggcct tacacctcgc ggctgccgac
1980
catgcgcagg tgttttgcga agttctctct gattacagac gcggaatcat tctccggtt
2040
ccggcgcttc ctctccgcgt agccccgaa caccgagatg gcttgcatag ttgtggttgc
2100
tgtctggaag ctgaaaagat tttcttggg gaaccaggta cgaataggga tgtcgtcaga
2160
cacacggtca acgctgtaca tcctctccag ctctctcggc cgaccggagg tctcaggcag
2220
agggtgcttg tccagcccaa agggccgagg ggtggggcca ggagccagct gggcacatac
2280
cggggcactc cettggagcc cctggcgngc tgcccccca gcttcttggc agggcctgct
2340
gacgtcctcc cggctgccac cagggtgggc gcgcaggggc tggctgtgat ggtgaggggtg
2400
ccgctgcgcg cggcccttca ccaccgccag ctcaatggcc tcgcctcag ggctggggag
2460
cagggcaggc tcccagaga tgaagtacac tcgag
2495

<210> 6220
 <211> 179
 <212> PRT
 <213> Homo sapiens

<400> 6220
 Phe Phe Phe Phe Ser Arg Trp Arg Ile Arg Phe Asn Gly His Tyr
 1 5 10 15
 Glu Gly Ile Val His Arg Ser Lys Pro Gly Pro Arg Pro Ser Pro Pro
 20 25 30
 Ser Ala Gly Asn Thr Ala Arg Cys Pro Gln Thr Pro Gly Ser Ala Gln
 35 40 45
 Gly Gly Pro Ala Pro Ser Pro Gln Xaa Tyr Ile His Asp Ser Pro Ser
 50 55 60
 Cys Trp Pro Trp Thr Lys Ala Gly Ser Ser Xaa Cys Pro Val Arg Ser
 65 70 75 80
 Pro Tyr Ser Pro Pro Ala Ala Arg Pro Gly Pro Gly Xaa Pro Leu Trp
 85 90 95
 Cys Gln Arg Val Ser Gln Asn Pro Gly Pro Ser Pro Ser Xaa Gly Pro
 100 105 110
 Leu Pro Ser Pro Arg Pro Val Cys Trp Asp Gly Ala Ser Thr Leu Arg
 115 120 125
 Leu Val Lys Ala Glu Leu Asn Ser Ser Asn Glu Ser Ala Gly Trp Ala
 130 135 140
 Trp Gly Asp Gly Glu Gln Ala Pro Pro Arg Ala Ser Ser Glu Gly Gly
 145 150 155 160
 Asp Ala Ala Pro Phe Leu Pro Ala Ala Gln Thr Ala Pro Thr Gly Ser
 165 170 175
 Gly Ala Gly

<210> 6221
 <211> 1487
 <212> DNA
 <213> Homo sapiens

<400> 6221
 nntctgcagga aaaagtgtcg ctctgacgca gatgctctag tgttttctaa gtgacagctc
 60
 ttatgggcacc ctggatgccc ctgtattcca cctcattacc ttgtctctctc tcgggtgctgc
 120
 ctcttgttcc ctgtctttgt tttgtttcca tattaactccc gtatttctcg acatatctgc
 180
 attttcttac ttactgtgtc ccgatgcagc tgctcctggt tttcacatcc aaggtttctc
 240
 ctccatggca ctaactgacgt tttgggctga cgaattcttt ggggacagga tggggcatgt
 300
 cctgtgcatt ttaggatggt gagtagcagc cctggcctgc atccactaga tgccagtgtg
 360
 acctccccag gttctgaagc cagacacaag atgaaaaagc taactccaaa acagaaattt
 420
 tctgaagatt tagagtcata taagatatca gtggtaatgc aggaatcagc tgagaaattt
 480

tcagaaaaagt tacataagtg taaagaatttt gtggacagtt gcaggcttac tttccctact
 540
 agtgggtgatg aatacagcag gggcttcctt caaaacctta accttattca agatcagaat
 600
 gcgcaaacaa ggtggaagca gggcagatat gatgaggatg gcaaaccctt caatcaaaga
 660
 tctttgtttt tggggcatga gcgaattctc acaagagcaa agtcttatga atgcagtgaa
 720
 tgtggaaaaag tcattagcgc taaggcatgg ttgatcaac atcaaagaat tcacttttta
 780
 gagaatcctt ttgagtgtaa ggtctgtggg caagccttca gacagcggtc agctcttacg
 840
 gtccataaac agtgtcacct gcaaaacaag ccatacagat gtcatgactg tggaaagtgt
 900
 tttcggcagc tcgcgtatct tgttgaacat aagaggattc acaccaaaaga aaaaccttat
 960
 aaatgtagta aatgtgaaaa aacgtttagt cagaattcaa ccttatttcg acatcaggtg
 1020
 atccatagtg gagaaaaaacg ccataaatgc cttgagtgtg gaaaagcctt tggccggcat
 1080
 tcaacccttc tatgtcatca acagattcac agtaaacga acaccataa atgcagtgaa
 1140
 tgtggacagt cctttggtag gaatgtggat ctcttcacgc atcaaagaat ccatacaaaag
 1200
 gaggaattct ttcaatgtgg agaattgtggg aaaacgttta gttttaagag gaatcttttt
 1260
 cgacatcagg tcattcacac tggaaagcaa ctctaccaat gtgtcatatg tggaaaatct
 1320
 ttcaagtggc acacaagctt tattaagcac cagggcactc acaaaggaca gatatccaca
 1380
 tgatgttaat tggaaagcag tcattggaga actagaactt ataaacctct acttcaagtg
 1440
 tgtatcacgt aattgtttcc atgaaaagca ataaatgtaa caaaggg
 1487

<210> 6222

<211> 330

<212> PRT

<213> Homo sapiens

<400> 6222

Met Lys Lys Leu Thr Pro Lys Gln Lys Phe Ser Glu Asp Leu Glu Ser
 1 5 10 15
 Tyr Lys Ile Ser Val Val Met Gln Glu Ser Ala Glu Lys Leu Ser Glu
 20 25 30
 Lys Leu His Lys Cys Lys Glu Phe Val Asp Ser Cys Arg Leu Thr Phe
 35 40 45
 Pro Thr Ser Gly Asp Glu Tyr Ser Arg Gly Phe Leu Gln Asn Leu Asn
 50 55 60
 Leu Ile Gln Asp Gln Asn Ala Gln Thr Arg Trp Lys Lys Gln Gly Arg Tyr
 65 70 75 80
 Asp Glu Asp Gly Lys Pro Phe Asn Gln Arg Ser Leu Leu Leu Gly His
 85 90 95
 Glu Arg Ile Leu Thr Arg Ala Lys Ser Tyr Glu Cys Ser Glu Cys Gly

```

          100          105          110
Lys Val Ile Arg Arg Lys Ala Trp Phe Asp Gln His Gln Arg Ile His
          115          120          125
Phe Leu Glu Asn Pro Phe Glu Cys Lys Val Cys Gly Gln Ala Phe Arg
          130          135          140
Gln Arg Ser Ala Leu Thr Val His Lys Gln Cys His Leu Gln Asn Lys
          145          150          155          160
Pro Tyr Arg Cys His Asp Cys Gly Lys Cys Phe Arg Gln Leu Ala Tyr
          165          170          175
Leu Val Glu His Lys Arg Ile His Thr Lys Glu Lys Pro Tyr Lys Cys
          180          185          190
Ser Lys Cys Glu Lys Thr Phe Ser Gln Asn Ser Thr Leu Ile Arg His
          195          200          205
Gln Val Ile His Ser Gly Glu Lys Arg His Lys Cys Leu Glu Cys Gly
          210          215          220
Lys Ala Phe Gly Arg His Ser Thr Leu Leu Cys His Gln Gln Ile His
          225          230          235          240
Ser Lys Pro Asn Thr His Lys Cys Ser Glu Cys Gly Gln Ser Phe Gly
          245          250          255
Arg Asn Val Asp Leu Ile Gln His Gln Arg Ile His Thr Lys Glu Glu
          260          265          270
Phe Phe Gln Cys Gly Glu Cys Gly Lys Thr Phe Ser Phe Lys Arg Asn
          275          280          285
Leu Phe Arg His Gln Val Ile His Thr Gly Ser Gln Leu Tyr Gln Cys
          290          295          300
Val Ile Cys Gly Lys Ser Phe Lys Trp His Thr Ser Phe Ile Lys His
          305          310          315          320
Gln Gly Thr His Lys Gly Gln Ile Ser Thr
          325          330

```

<210> 6223

<211> 944

<212> DNA

<213> Homo sapiens

<400> 6223

```

acccccaccc tcaactgtgca cccccacccc tccaccacaca cccccatccc cacctgcacc
60
ccacccccca ctcaacaaccc ccaactccca cctgcaacac cccactccc caccgcacc
120
ccccaacttc ccatccccc actcctctcc attccctctc ttgcttgtgc gcataagcaa
180
gtcccaactca ttgcaactgt aaccaatacc aagcatgaga acaggaacta gctccaccct
240
ctaaaccccc ctccagctgc agacgcaacg gagtttgtgc aggggcgcag cgctccagcc
300
atggcgcggt cgctcgtcca cgacaccgtg ttctactgcc tgagtgtata ccaggtaaaa
360
ataagcccc caacctagct gggggcagca tcaagcgagc aaggccatgt tggccaagga
420
gctccaggcc tcatgggtaa tatgaacct gagggcggtg tgaaccacga gaacggcatg
480
aacccgcatg cgccgatgat ccccgagggc ggcggtgaa accaggagcc tcggcagcag
540

```


ccgcagcccc cgccggagga gccggcccag gcggccatgg aggggtccgca gcccgagaac
 600
 atgcagccac gaactcggcg cacgaagttc acgctgtgtc aggtggagga gctggaaagt
 660
 gttttccgac acactcaata ccttgatgtg ccacacaaga gggaacttgc cgaaaactta
 720
 ggtgtgactg aagacaaagt gcgggtcagt acacttga aaagcaattg agaggacagc
 780
 cattctaaaa cctgcttcag ggcattgaag gctttgaagg ctttgcctg aacgtttctaa
 840
 agttgtgtgt tttattattg tcttttttat gttgacaaat aagttttgaa gtttgggttc
 900
 cttgtcggtg gaaaaggaag taagctccag cttatggttc tttc
 944

<210> 6224

<211> 156

<212> PRT

<213> Homo sapiens

<400> 6224

Met	Ala	Arg	Ser	Leu	Val	His	Asp	Thr	Val	Phe	Tyr	Cys	Leu	Ser	Val
1				5					10					15	
Tyr	Gln	Val	Lys	Ile	Ser	Pro	Thr	Pro	Gln	Leu	Gly	Ala	Ala	Ser	Ser
		20						25					30		
Ala	Glu	Gly	His	Val	Gly	Gln	Gly	Ala	Pro	Gly	Leu	Met	Gly	Asn	Met
		35				40						45			
Asn	Pro	Glu	Gly	Gly	Val	Asn	His	Glu	Asn	Gly	Met	Asn	Arg	Asp	Gly
	50					55					60				
Gly	Met	Ile	Pro	Glu	Gly	Gly	Gly	Asn	Gln	Glu	Pro	Arg	Gln	Gln	
65				70				75						80	
Pro	Gln	Pro	Pro	Pro	Glu	Glu	Pro	Ala	Gln	Ala	Ala	Met	Glu	Gly	Pro
				85				90					95		
Gln	Pro	Glu	Asn	Met	Gln	Pro	Arg	Thr	Arg	Arg	Thr	Lys	Phe	Thr	Leu
			100					105					110		
Leu	Gln	Val	Glu	Glu	Leu	Glu	Ser	Val	Phe	Arg	His	Thr	Gln	Tyr	Pro
			115					120				125			
Asp	Val	Pro	Thr	Arg	Arg	Glu	Leu	Ala	Glu	Asn	Leu	Gly	Val	Thr	Glu
	130					135					140				
Asp	Lys	Val	Arg	Val	Ser	Thr	Leu	Glu	Lys	Ala	Ile				
145					150						155				

<210> 6225

<211> 3851

<212> DNA

<213> Homo sapiens

<400> 6225

nggatccagc tgctgcgcag gtcagaccca gctgcttttg agtcccgcct ggagaaacgc
 60
 agtgaatttc ggaagcagcc agtggggcat tccaggcaag gtgattttat caaatgtgtg
 120
 gaacagaaga cagatgcctt ggggaaacag tctgtgaaca gaggattcac taaggacaag
 180

actctcagtt caatctttaa cattgagatg gtaaaagaaa aaactgcaga agaaataaaa
240
cagatttggc agcaatatatt tgcagcaaaa gatacagttc acgcagttat tctctgcagaa
300
aagtttgatt tgatctggaa ccgggctcag tcctgtccaa cttttctatg tgctctgccaa
360
agaagggaag gttatgagtt tttttagga caatggacag gtactgaaact ccacttcact
420
gcacttataa atattcagac ccgaggggaa gctgcagcca gccagctgat tttatatcac
480
tatctgaac ttaaggaaga aaagggcata gtgctgatga ctgcagaaat ggattccaca
540
tttctgaatg ttgctgaggc acagtgcac gccaaccaag ttcagctctt ctacgctact
600
gatcggaag agacctacgg gttagtggag acctttaacc tcagaccaa tgagtcca
660
tatatgtctg tcatcgtga attggagcaa agcggacttg gaggagaact gaaatgtgcc
720
cagaacaaa ataagactta gaactgtaca ggttggccct tcacctagtt gactcagccc
780
tcgatatgtc agagcccacc cctcctcag gaactcaaga gctcagcatt tataatgagc
840
agttggtaat gagttgcctc atgtgcttgt cgcaagcagt cacagagatg agccctatta
900
cttgatatcc aggaacaaag gtacctgaac attctgataa ttatctcagc atacttgagg
960
tttctctttt taagtgttcg aggttataac aagagacagc caaggaccta caagacagtt
1020
gacttgattt tgcacagttg aacagcgcag ttgcattctg gccactttga ccttatagct
1080
cccaaatgat gagtttgtca tctttatgaa ctcatgacag gataataagc ttgaagacct
1140
gctgtagtta gatattggct ttaatccttc ccatgcacca gtcagctgaa caaaagcata
1200
agccaaacat cctgttataa ctgtagaata accagatatt cccatcaggt taaagacttc
1260
atctagatga tgccccccag agatgccttt agtgtaagta gctggcttgg ggtatcagca
1320
aatttcaggt atagttgat aaacaggta cagggcctga tactattaaa ccatagtttg
1380
tggcaccgcg ttttctaact ccacctgta gaagctatgt gtttgaagga atgaatcagt
1440
gcagtataaa taaaattctt ttgtaaggag aagattaac ctggtttgca tgattttttt
1500
aaaaacaact ctaaacatga tacgaaaaaaggatgaaag caaatgttcc cagattggat
1560
gtggggaaaa tatagcaata attttttttt aagtcctggc tacaatgttt gttatacaaa
1620
ataatgaat ctgagttatg tactgtccat tgtgtcaggc ctatgggctg attttatcaa
1680
aactcatctt gggactgaaa aattgttttg aatgccagaa ataagaaagt tgttctccag
1740
agctggaac ccactcttctg ttttagtgt cactgttgtg gctccaaagt cagtgatagg
1800

aaaggacggg ggttacacac cagccttctg aaccaaggc cccagctatt gttgtcagct
1860
gcctttacca tggcatttct ttctctttct tttttctct agatgaagtc ttgctctgtc
1920
tgcccaggc tggagtcag tagcgtgatc tcagctcgt gcaacctcta cctccctggg
1980
tcaagtgtat ctgctgcgtc agcctcctga ggagctagga ttacaggcgc atgccaccat
2040
acctggctta tttttgtatt gttgtagaga cagggtttca cttgtttggc caggctggct
2100
ggctctgaac tcctggcctc aagtgatcca ccaccttgac ctcccaaagt gctgggatta
2160
caggtgtgag ccaccgtgcc tggcctgaca ttcttttatt gatctaact gctccactct
2220
gctgctcctg cctaagatct ggttatatga cactgaatgt ggtgagtggg aatttaagca
2280
gtatttcgag tttgtgtgtg tgtgttttct tccttcocaga agaattttta taggttgggc
2340
ctgtccctaa gctcttttaa taggggtggc atcccactat tctctgagcg gtgtctatct
2400
tgttgcacct ttgagcttat gtattgagag agacagatag tattttttta aactggggaa
2460
gctgctatcc ttccactatt tctctaaagg ttgagctgtt aactaatgta aattctggac
2520
ctgcttctgg tcctggcagt ttatcttttg agaaacttga gtcttatctg cctgccatt
2580
ttcattaaat gccttctgac cttctgaatg ttttgggtcc caagaatttt tgacatcaga
2640
tggggttgtt tttatttgta tccagttatg tttgcttgtc ttccagatg ggcccagtta
2700
ttagccatac atagtacatt gatacacctc caccagcggg tgaggaaatg atggaaaaag
2760
gagtaagaag tggccattcg ttttaatcat tcctcctgga ttgtcctca gtcaccaact
2820
gccaaagtag atgtgtccat gtataaatgt gtggggcatg actaaagtac cactgagctg
2880
tcctttatat ttatttacct agaaagatct ggcaaaagac tcaagaaaaa ttgtaccatt
2940
taatcagtaa atttgtcccc tgggtgctagc atgggtttat agaaagtgga caggctttag
3000
agttaagtga atctgggttc atatgttagt gttgctatcc attagctcta tactgttgaa
3060
caaattgctt aaactatcta attttggggt ttttttttcc atctaaaaa gggataataa
3120
tatctacctc ataggattat tgtgagaatt aaattaactt cactatagta gaaaatatca
3180
actaccatcc ttttctctac ttcccttgcc cctcattaaa gactaatata agttagcatt
3240
tcagatgtgt agatcattct ttattccagt taaaagaaca aactttatct catcagttct
3300
gaaactttta gatgcagtag catcacctaa agtgccttta aaatgcagat tctcaggcct
3360
caaccgtaca cccccccccc acacacgtac taatcaaga atatgtgcag aaggtactgg
3420

gaatctactt gttaatatgt gctccaaatg attctgatgt aggtaattag ccagccacac
 3480
 ttgagaacc actgccttat ctattcttta caaaaatgta cattgccagg tctttctttc
 3540
 ctgtggatgc taactatagg atatttaggt tcctctgttc tttgtctccc atatgggcc
 3600
 cctttgcaaa ctccaaatac attatattta tttattcttg tgtctttttt cccccactag
 3660
 actgtgagct ccttgagggc caggacttat ctctgttgc agtgccaagg acatggcctg
 3720
 gaccatagaa gatactcagt tttttgttga ataatagggt aatatggatt tcaacaaaaa
 3780
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa
 3840
 aaaaaaaaaa a
 3851

<210> 6226

<211> 246

<212> PRT

<213> Homo sapiens

<400> 6226

Xaa	Ile	Gln	Leu	Leu	Arg	Arg	Ser	Asp	Pro	Ala	Ala	Phe	Glu	Ser	Arg
1				5					10					15	
Leu	Glu	Lys	Arg	Ser	Glu	Phe	Arg	Lys	Gln	Pro	Val	Gly	His	Ser	Arg
			20						25					30	
Gln	Gly	Asp	Phe	Ile	Lys	Cys	Val	Glu	Gln	Lys	Thr	Asp	Ala	Leu	Gly
			35					40					45		
Lys	Gln	Ser	Val	Asn	Arg	Gly	Phe	Thr	Lys	Asp	Lys	Thr	Leu	Ser	Ser
			50			55					60				
Ile	Phe	Asn	Ile	Glu	Met	Val	Lys	Glu	Lys	Thr	Ala	Glu	Glu	Ile	Lys
65					70				75					80	
Gln	Ile	Trp	Gln	Gln	Tyr	Phe	Ala	Ala	Lys	Asp	Thr	Val	Tyr	Ala	Val
					85				90					95	
Ile	Pro	Ala	Glu	Lys	Phe	Asp	Leu	Ile	Trp	Asn	Arg	Ala	Gln	Ser	Cys
			100				105						110		
Pro	Thr	Phe	Leu	Cys	Ala	Leu	Pro	Arg	Arg	Glu	Gly	Tyr	Glu	Phe	Phe
			115				120					125			
Val	Gly	Gln	Trp	Thr	Gly	Thr	Glu	Leu	His	Phe	Thr	Ala	Leu	Ile	Asn
			130			135					140				
Ile	Gln	Thr	Arg	Gly	Glu	Ala	Ala	Ala	Ser	Gln	Leu	Ile	Leu	Tyr	His
145				150					155					160	
Tyr	Pro	Glu	Leu	Lys	Glu	Glu	Lys	Gly	Ile	Val	Leu	Met	Thr	Ala	Glu
				165					170					175	
Met	Asp	Ser	Thr	Phe	Leu	Asn	Val	Ala	Glu	Ala	Gln	Cys	Ile	Ala	Asn
			180					185					190		
Gln	Val	Gln	Leu	Phe	Tyr	Ala	Thr	Asp	Arg	Lys	Glu	Thr	Tyr	Gly	Leu
			195				200					205			
Val	Glu	Thr	Phe	Asn	Leu	Arg	Pro	Asn	Glu	Phe	Lys	Tyr	Met	Ser	Val
			210			215					220				
Ile	Ala	Glu	Leu	Glu	Gln	Ser	Gly	Leu	Gly	Ala	Glu	Leu	Lys	Cys	Ala
225				230					235					240	
Gln	Asn	Gln	Asn	Lys	Thr										

245

<210> 6227

<211> 830

<212> DNA

<213> Homo sapiens

<400> 6227

nnacagcctt cctgaaaaca caccagcgc aggcaccagg ggtcccaccg atggacacac
 60
 cttggaggca gcacctacag agcgggtgatt ttcgacatgg gcgaggttct cattctctct
 120
 ccagggagag tegtgcaga atgggaggta cagaatcgta tcccttctgg aactatatta
 180
 aaggccttga tggaaagggtg tgaatatggg ccctggatga gatttatgag agcagaaata
 240
 acagcagagg gttttttacg agaatttggg agactttgct ctgaaatgtt aaagacctcc
 300
 gtgcctgtgg actcattttt ctctctgttg accagtggagc gaggggcaaa gcagttccca
 360
 gtgatgactg agggccataac tcaaatccgg gcaaaaggtc ttcagactgc agtcttgagc
 420
 aataattttt atcttcccaa ccagaaaagc tttttgcccc tggaccggaa acagtttgat
 480
 gtgattgtgg agtctctgat ggaagggatc tgtaagccag acctaggat ctacaagctg
 540
 tgcttggagc agctcggcct gcagccctct gaggccatct ttcttgatga ctttggaaac
 600
 aatctaaaag aagctgccag acttgggtatt cacaccatta aggttaatga ccagagagct
 660
 gcagttaaagg aattagaagc tctcttgggt tttacattga gaggtagtgt tccaaacact
 720
 cggcctgtga aaaagacgat ggaattccg aaagattcct tcgagaagta cctcaaagac
 780
 ttactgggta tccagaccac aggccattg gaactacttc agtttgatca
 830

<210> 6228

<211> 271

<212> PRT

<213> Homo sapiens

<400> 6228

Lys His Thr Gln Arg Arg His Gln Gly Ser His Arg Trp Thr His Leu
 1 5 10 15
 Gly Gly Ser Thr Tyr Arg Ala Val Ile Phe Asp Met Gly Gly Val Leu
 20 25 30
 Ile Pro Ser Pro Gly Arg Val Ala Ala Glu Trp Glu Val Gln Asn Arg
 35 40 45
 Ile Pro Ser Gly Thr Ile Leu Lys Ala Leu Met Glu Gly Gly Glu Asn
 50 55 60
 Gly Pro Trp Met Arg Phe Met Arg Ala Glu Ile Thr Ala Glu Gly Phe
 65 70 75 80
 Leu Arg Glu Phe Gly Arg Leu Cys Ser Glu Met Leu Lys Thr Ser Val

ggsggggact cgaagccctt ggtggagctg aacggtgtct ccctgattcc caaggggtca
780
cgggactgtg gcttgcattg ccaggccccc aaggtgccac ccaggacct gcccccaacc
840
gccacctctt cctccatggc cagcttctctg tacagcagcg cgtctcccaa ccacgccatc
900
cgagagctca agcaggaagc accttctctg ccccttgccc ccagcgacct gggcctgagt
960
cgcccatatg cagagcccaa ggccaccggt gcccaagact tctccgactg ttgtggacag
1020
aagcccatctg ggcctgggtg gcctctctat cagaacgtcc atgcctccaa ggcattctct
1080
ttctccatcg tccatgacaa gtacagagaag tgggacgcct tcataaagga aaccgaggac
1140
atcaacacgc tccgggagtg tgtgcagatc ctgtttaaca gcagatatgc ggaagccctg
1200
ggcctgggca acatggtccc cgtgccctac cggaagattg cctgtgaccc ggaggctgtg
1260
gagatcgtgg gcatcccgga caagatcccc ttcaagcgcc cctgcaacta cggagtcccc
1320
aagctgaagc ggaatcctga ggagcgccat agtatccact tcatcattaa gaggatgttt
1380
gatgagcgaa ttttcacagg gaacaagttt accaaagaca ccacgaagct ggagccagcc
1440
agcccgccag aggacacctc tgcagaggtc tctagggcca ccgtccttga ccttgcctgg
1500
aatgctcgtg cagacaaggg cagcatgtct gaagactgtg ggccaggaac ctccggggag
1560
ctgggcccggc tgaggccgat caaaattgag ccagaggatc tggacatcat tcagggtcacc
1620
gtcccagacc cctcgccaac ctctgaggaa atgacagact cgatgcctgg gcacctgcca
1680
tcggaggatt ctgggttatg gatggagatg ctgacagaca aaggctctgag tgaggacgag
1740
cgggcccgagg agaggcccggt ggaggacagc caggggtgag tgatccggcc cctcgccaag
1800
caggtggagc tgctcttcaa cacacgatac gccaaaggcca ttggcatctc ggagcccgct
1860
aaggtgcccgt actccaagtt tctgatgcac ccggaggagc tgtttgtggt gggactgcct
1920
gaaggcatct cctccgcagc gcccaactgc ttcgggatcg ccaagctccg gaagattctg
1980
gaggccagca acagcatcca gtttgtcatc aagaggcccg agctgctcac tgaggagtc
2040
aaagagccca tcgtggatag tcaagagagg gattccgggg accctctggt ggacgagagc
2100
ctgaagagac agggcctttca agaaaattat gacgcgagcg tctcacggat cgacatcgcc
2160
aacacactaa gggagcaggt ccaggacctt ttcaataaga aatacgggga agccttgggg
2220
atcaagtacc cgttccaggt cccctacaag cggatcaaga gtaaccccg ctccgtgatc
2280
atcgaggggc tgcccccagg aatcccgctc cgaaagccct gtaccttcgg ctcccagaac
2340

ctggagagga ttcttgctgt ggctgacaag atcaagttca cagtcaccag gcctttccaa
 2400
 ggactcatcc caaagcctga tgaagatgac gccaacagac tcggggagaa ggtgatcctg
 2460
 cgggagcagg tgaaggaact cttcaacgag aaatacgggt aggcctggg cctgaaccgg
 2520
 ccggtgctgg tcccttataa actaatccgg gacagcccag acgcogtgga ggtcacgggt
 2580
 ctgcctgatg acatcccctt ccggaacccc aacacgtacg acatcccacg gctggagaag
 2640
 atcctgaagg ccgagagca tgtccgcatg gtcattatta accagctcca accctttgca
 2700
 gaaatctgca atgatgcaa ggtgccagcc aaagacagca gcattcccaa gcgcaagaga
 2760
 aagcgggtct ccgaaggaaa ttccgtctcc tcttctctct cgtcttctct tctctcgtcc
 2820
 tctaaccggg attcagtggc atcgccaac cagatctcac tcgtgcaatg gccaatgtac
 2880
 atggtggact atgccggcct gaacgtgcag ctcccgggac ctcttaatta ctgacctca
 2940
 gtactgaatc aggacctcac tcagaaagac taaaggaaat gtaatttatg tacaaaaatg
 3000
 atattcggat atgtatcgat gccttttagt ttttccaatg atttttacac tatattcctg
 3060
 ccaccaaggc ctttttaaat aagtaaaaaa aaaaaaaaaa aaaaa
 3105

<210> 6230

<211> 944

<212> PRT

<213> Homo sapiens

<400> 6230

Met Ala Leu Leu Gly Lys Arg Cys Asp Val Pro Thr Asn Gly Cys Gly
 1 5 10 15
 Pro Asp Arg Trp Asn Ser Ala Phe Thr Arg Lys Asp Glu Ile Ile Thr
 20 25 30
 Ser Leu Val Ser Ala Leu Asp Ser Met Cys Ser Ala Leu Ser Lys Leu
 35 40 45
 Asn Ala Glu Val Ala Cys Val Ala Val His Asp Glu Ser Ala Phe Val
 50 55 60
 Val Gly Thr Glu Lys Gly Arg Met Phe Leu Asn Ala Arg Lys Glu Leu
 65 70 75 80
 Gln Ser Asp Phe Leu Arg Phe Cys Arg Gly Pro Pro Trp Lys Asp Pro
 85 90 95
 Glu Ala Glu His Pro Lys Lys Val Gln Arg Gly Glu Gly Gly Gly Arg
 100 105 110
 Ser Leu Pro Arg Ser Ser Leu Glu His Gly Ser Asp Val Trp Leu Leu
 115 120 125
 Arg Lys Met Val Glu Glu Val Phe Asp Val Leu Tyr Ser Glu Ala Leu
 130 135 140
 Gly Arg Ala Ser Val Val Pro Leu Pro Tyr Glu Arg Leu Leu Arg Glu
 145 150 155 160
 Pro Gly Leu Leu Ala Val Gln Gly Leu Pro Glu Gly Leu Ala Phe Arg


```

165      170      175
Arg Pro Ala Glu Tyr Asp Pro Lys Ala Leu Met Ala Ile Leu Glu His
180      185      190
Ser His Arg Ile Arg Phe Lys Leu Lys Arg Pro Leu Glu Asp Gly Gly
195      200      205
Arg Asp Ser Lys Ala Leu Val Glu Leu Asn Gly Val Ser Leu Ile Pro
210      215      220
Lys Gly Ser Arg Asp Cys Gly Leu His Gly Gln Ala Pro Lys Val Pro
225      230      235
Pro Gln Asp Leu Pro Pro Thr Ala Thr Ser Ser Ser Met Ala Ser Phe
245      250      255
Leu Tyr Ser Thr Ala Leu Pro Asn His Ala Ile Arg Glu Leu Lys Gln
260      265      270
Glu Ala Pro Ser Cys Pro Leu Ala Pro Ser Asp Leu Gly Leu Ser Arg
275      280      285
Pro Met Pro Glu Pro Lys Ala Thr Gly Ala Gln Asp Phe Ser Asp Cys
290      295      300
Cys Gly Gln Lys Pro Thr Gly Pro Gly Gly Pro Leu Ile Gln Asn Val
305      310      315
His Ala Ser Lys Arg Ile Leu Phe Ser Ile Val His Asp Lys Ser Glu
325      330      335
Lys Trp Asp Ala Phe Ile Lys Glu Thr Glu Asp Ile Asn Thr Leu Arg
340      345      350
Glu Cys Val Gln Ile Leu Phe Asn Ser Arg Tyr Ala Glu Ala Leu Gly
355      360      365
Leu Gly Asn Met Val Pro Val Pro Tyr Arg Lys Ile Ala Cys Asp Pro
370      375      380
Glu Ala Val Glu Ile Val Gly Ile Pro Asp Lys Ile Pro Phe Lys Arg
385      390      395
Pro Cys Thr Tyr Gly Val Pro Lys Leu Lys Arg Ile Leu Glu Glu Arg
405      410      415
His Ser Ile His Phe Ile Ile Lys Arg Met Phe Asp Glu Arg Ile Phe
420      425      430
Thr Gly Asn Lys Phe Thr Lys Asp Thr Thr Lys Leu Glu Pro Ala Ser
435      440      445
Pro Pro Glu Asp Thr Ser Ala Glu Val Ser Arg Ala Thr Val Leu Asp
450      455      460
Leu Ala Gly Asn Ala Arg Ser Asp Lys Gly Ser Met Ser Glu Asp Cys
465      470      475
Gly Pro Gly Thr Ser Gly Glu Leu Gly Gly Leu Arg Pro Ile Lys Ile
485      490      495
Glu Pro Glu Asp Leu Asp Ile Ile Gln Val Thr Val Pro Asp Pro Ser
500      505      510
Pro Thr Ser Glu Glu Met Thr Asp Ser Met Pro Gly His Leu Pro Ser
515      520      525
Glu Asp Ser Gly Tyr Gly Met Glu Met Leu Thr Asp Lys Gly Leu Ser
530      535      540
Glu Asp Ala Arg Pro Glu Glu Arg Pro Val Glu Asp Ser His Gly Asp
545      550      555
Val Ile Arg Pro Leu Arg Lys Gln Val Glu Leu Leu Phe Asn Thr Arg
565      570      575
Tyr Ala Lys Ala Ile Gly Ile Ser Glu Pro Val Lys Val Pro Tyr Ser
580      585      590
Lys Phe Leu Met His Pro Glu Glu Leu Phe Val Val Gly Leu Pro Glu

```

```

      595              600              605
Gly Ile Ser Leu Arg Arg Pro Asn Cys Phe Gly Ile Ala Lys Leu Arg
 610              615              620
Lys Ile Leu Glu Ala Ser Asn Ser Ile Gln Phe Val Ile Lys Arg Pro
 625              630              635
Glu Leu Leu Thr Glu Gly Val Lys Glu Pro Ile Val Asp Ser Gln Glu
      645              650              655
Arg Asp Ser Gly Asp Pro Leu Val Asp Glu Ser Leu Lys Arg Gln Gly
      660              665              670
Phe Gln Glu Asn Tyr Asp Ala Arg Leu Ser Arg Ile Asp Ile Ala Asn
      675              680              685
Thr Leu Arg Glu Gln Val Gln Asp Leu Phe Asn Lys Lys Tyr Gly Glu
      690              695              700
Ala Leu Gly Ile Lys Tyr Pro Val Gln Val Pro Tyr Lys Arg Ile Lys
 705              710              715
Ser Asn Pro Gly Ser Val Ile Ile Glu Gly Leu Pro Pro Gly Ile Pro
      725              730              735
Phe Arg Lys Pro Cys Thr Phe Gly Ser Gln Asn Leu Glu Arg Ile Leu
      740              745              750
Ala Val Ala Asp Lys Ile Lys Phe Thr Val Thr Arg Pro Phe Gln Gly
      755              760              765
Leu Ile Pro Lys Pro Asp Glu Asp Asn Ala Asn Arg Leu Gly Glu Lys
 770              775              780
Val Ile Leu Arg Glu Gln Val Lys Glu Leu Phe Asn Glu Lys Tyr Gly
 785              790              795
Glu Ala Leu Gly Leu Asn Arg Pro Val Leu Val Pro Tyr Lys Leu Ile
      805              810              815
Arg Asp Ser Pro Asp Ala Val Glu Val Thr Gly Leu Pro Asp Asp Ile
      820              825              830
Pro Phe Arg Asn Pro Asn Thr Tyr Asp Ile His Arg Leu Glu Lys Ile
      835              840              845
Leu Lys Ala Arg Glu His Val Arg Met Val Ile Ile Asn Gln Leu Gln
 850              855              860
Pro Phe Ala Glu Ile Cys Asn Asp Ala Lys Val Pro Ala Lys Asp Ser
 865              870              875
Ser Ile Pro Lys Arg Lys Arg Lys Arg Val Ser Glu Gly Asn Ser Val
      885              890              895
Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Asn Pro Asp Ser
      900              905              910
Val Ala Ser Ala Asn Gln Ile Ser Leu Val Gln Trp Pro Met Tyr Met
 915              920              925
Val Asp Tyr Ala Gly Leu Asn Val Gln Leu Pro Gly Pro Leu Asn Tyr
 930              935              940

```

<210> 6231

<211> 471

<212> DNA

<213> Homo sapiens

<400> 6231

```

tgatcattgg gatcacttgt tggaatggcc ggggtctctgt gcaggcacct agcaaatgtc
60
taccaatgac aggcctact cacagccact gcactccage ttgggcgaca gaacagggcc
120

```

ttgctttttt aaaaaaaaaa aaaaggctca aaaaagagt atgctgggcc aaaaatctgg
 180
 cccctcaggc ctctgacct ggaggagaaa aagggggccc aagccccccg ttgcccccat
 240
 ctccatatgg aatggcacaa cccctcgagg ggaaccccc cctaaccata gtctaaaaa
 300
 ggggacaaaa aaatggggcg tggatttttc aacgcggaa acccaattcc caccctctgg
 360
 ccggccgttc ttatgggattc caacttggga cccaacctgg gcgtattctg ggccttactt
 420
 gtcttctgtg ggaattggta ttccgttccc atttccccca ccttccaacc c
 471

<210> 6232

<211> 138

<212> PRT

<213> Homo sapiens

<400> 6232

Met Ser Thr Asn Asp Arg Pro Tyr Ser Gln Pro Leu His Ser Ser Leu
 1 5 10 15
 Gly Asp Arg Thr Arg Pro Cys Leu Phe Lys Lys Lys Lys Ala Gln
 20 25 30
 Lys Lys Ser Met Leu Gly Gln Lys Ser Gly Pro Ser Gly Leu Leu Thr
 35 40 45
 Trp Arg Arg Lys Arg Gly Pro Lys Pro Pro Val Ala Pro Ile Ser Ile
 50 55 60
 Trp Asn Gly Thr Thr Pro Arg Gly Glu Pro Pro Asn His Ser Ser
 65 70 75 80
 Lys Lys Gly Thr Lys Lys Trp Ala Leu Asp Phe Ser Thr Pro Glu Thr
 85 90 95
 Gln Phe Pro Pro Pro Gly Arg Pro Phe Leu Gly Ile Pro Thr Trp Asp
 100 105 110
 Pro Thr Trp Ala Tyr Ser Gly Pro Tyr Leu Phe Leu Val Gly Ile Gly
 115 120 125
 Ile Pro Phe Pro Phe Pro Pro Ser Asn
 130 135

<210> 6233

<211> 894

<212> DNA

<213> Homo sapiens

<400> 6233

acgctgaag gaaaaaagag aaggcgctgt cccgctcttg ctacgggtggc ctggaggaggt
 60
 ggcgaaccg gaacagagaa tttatcactt ctgggaactca cagtcgtgat gtctttcaag
 120
 agggaaaggag acgattggag tcaactcaat gtgctcaaaa aaagaagagt cggggacctc
 180
 ctaggcagtt acattccaga ggaatgaggcg ctgatgcttc gggatggacg ctttgctgtg
 240
 gccatctgcc cccatcgacc ggtactggac accctggcca tgctgactgc ccaccgtgca
 300

ggcaagaaac atctgtccag cttgcagctt ttctatggca agaagcagcc gggaaaggaa
 360
 agaaagcaga atccaaaaa tcagaatgaa ttgagaaggg aagaaaccaa agctgaggct
 420
 cctctgctaa ctcagacacg acttatcacc cagagtctc tgcacagagc tccccactat
 480
 aacagttgct gccgcggaa gtacagacca gaagcccctg gtccctctgt ctccccttcc
 540
 cctatgccac cctcagaggt caaactccaa agtgggaaga tcagtaggga acctgaacct
 600
 gcggctggcc cacaggccga ggagtcagca actgtctcag cccctgcacc catgagcccc
 660
 acaagaagac gagccctgga ccattatctc acccttcgaa gctctggatg gatcccgat
 720
 ggacgaggtc gatgggtaaa agatgaaaat gttgagttg actctgatga ggaggaacca
 780
 cctgatctcc ccttgagctg ataccctttt cccattcatt cacaaataaa ttacaatggg
 840
 tgcagagaac ttaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaa
 894

<210> 6234

<211> 230

<212> PRT

<213> Homo sapiens

<400> 6234

Met	Ser	Phe	Lys	Arg	Glu	Gly	Asp	Asp	Trp	Ser	Gln	Leu	Asn	Val	Leu
1			5						10					15	
Lys	Lys	Arg	Arg	Val	Gly	Asp	Leu	Leu	Ala	Ser	Tyr	Ile	Pro	Glu	Asp
			20						25					30	
Glu	Ala	Leu	Met	Leu	Arg	Asp	Gly	Arg	Phe	Ala	Cys	Ala	Ile	Cys	Pro
			35					40					45		
His	Arg	Pro	Val	Leu	Asp	Thr	Leu	Ala	Met	Leu	Thr	Ala	His	Arg	Ala
			50				55						60		
Gly	Lys	Lys	His	Leu	Ser	Ser	Leu	Gln	Leu	Phe	Tyr	Gly	Lys	Lys	Gln
					70					75				80	
Pro	Gly	Lys	Glu	Arg	Lys	Gln	Asn	Pro	Lys	His	Gln	Asn	Glu	Leu	Arg
					85				90					95	
Arg	Glu	Glu	Thr	Lys	Ala	Glu	Ala	Pro	Leu	Leu	Thr	Gln	Thr	Arg	Leu
					100				105					110	
Ile	Thr	Gln	Ser	Ala	Leu	His	Arg	Ala	Pro	His	Tyr	Asn	Ser	Cys	Cys
					115				120					125	
Arg	Arg	Lys	Tyr	Arg	Pro	Glu	Ala	Pro	Gly	Pro	Ser	Val	Ser	Leu	Ser
					130				135					140	
Pro	Met	Pro	Pro	Ser	Glu	Val	Lys	Leu	Gln	Ser	Gly	Lys	Ile	Ser	Arg
					145				150					155	
Glu	Pro	Glu	Pro	Ala	Ala	Gly	Pro	Gln	Ala	Glu	Glu	Ser	Ala	Thr	Val
					165				170					175	
Ser	Ala	Pro	Ala	Pro	Met	Ser	Pro	Thr	Arg	Arg	Arg	Ala	Leu	Asp	His
					180				185					190	
Tyr	Leu	Thr	Leu	Arg	Ser	Ser	Gly	Trp	Ile	Pro	Asp	Gly	Arg	Gly	Arg
					195				200					205	
Trp	Val	Lys	Asp	Glu	Asn	Val	Glu	Phe	Asp	Ser	Asp	Glu	Glu	Glu	Pro

210	215	220
Pro Asp Leu Pro Leu Asp		
225	230	

<210> 6235
 <211> 3427
 <212> DNA
 <213> Homo sapiens

<400> 6235
 cctagggcgc ccgaacccgc ggcggcgggt gggacaatgt ggttctttgc ccgggacccg
 60
 gtccgggact ttccgttcga gctcatcccg gagccccag agggcggcct gcccgggccc
 120
 tgggcctcgc accgcggcgc caagaaggcc acaggcagcc cegtgtccat ctctcgttat
 180
 gatgtgaagc ctggcgcgga agagcagacc caggtggcca aagctgcctt caagcgttc
 240
 aaaaactctac ggcaccccaa catcctggct tacatcgatg gactggagac agaaaaatgc
 300
 ctccacgtcg tgacagaggc tgtgaccccg ttgggaatat acctcaaggc gagagtggag
 360
 gctggtggtgc tgaaggagct ggagatctcc tgggggctac accagatcgt gaaagccctc
 420
 agcttctctg tcaacgactg cagcctcacc cacaacaatg tctgcatggc cgccgtgttc
 480
 gtggaccgag ctggcgagtg gaagcttggg ggcctggact acatgtattc gggccagggc
 540
 aacggtgggg gacctcccg caaggggac cccgagcttg agcagtatga cccccggag
 600
 ttggctgaca gcagtggcag agtggtcaga gagaagtggc cagcagacat gtggcgcttg
 660
 ggctgcctca tttgggaagt ctccaatggg cccctacctc gggcagcagc cctacgcaac
 720
 cctgggaaga tccccaaac gctggtgccc cattactgtg agctggtggg agcaaacccc
 780
 aaagtacgtc ccaacccagc cgccttctct cagaactgcc gggcacctgg tggcttcctg
 840
 agcaacogct ttgtggagac caacctgttc ctggaggaga ttcagatcaa agagccagcc
 900
 gagaagcaaa aattcttcca agagctgagc aagagcctgg acgcattccc tgaggatttc
 960
 tgtcggcaca aggtgctgcc ccagctgctg accgccttcg agtccggcaa tgctggggcc
 1020
 gtgttctca cgcctctctt caaggtgggc aagttcctga gcgctgagga gtatcagcag
 1080
 aagatcatcc ctgtggtggt caagatgttc tcatccactg accgggcccac gcgcacccgc
 1140
 ctccctgcagc agatggagca gttcatccag taccttgacg agccaacagt caacacccag
 1200
 atcttccccc acgtcgtaca tggttctctg gacaccaacc ctgccatccg ggagcagacg
 1260
 gtcaagtcca tgctgtctct ggcaccaaag ctgaacgagg ccaacctcaa tgtggagctg
 1320

atgaagcact ttgcacggct acaggccaag gatgaacagg gccccatccg ctgcaacacc
1380
acagtctgccc tggggcaaaat cggctcctac ctacgtgcta gcaccagaca cagggtcctt
1440
acctctgcct tcagccgagc cactaggggc cgttttgac cgtcccggt tgcgggtgtc
1500
ctgggctttg ctgccacca caacctctac tcaatgaac actgtgccc gaagatcctg
1560
cctgtgtctc cgggtctcac tgtagatcct gagaatccg tgcgagaca ggccttcaag
1620
gccattcgga gcttctctgc caaatggag tctgtgtcgg aggacccgac ccagctggag
1680
gaagtggaga aggatgtcca tgcagcctcc agccctggca tgggaggagc cgcagctagc
1740
tgggcaggct gggcggtgac cgggtctctc tcaactcacct ccaagctgat ccgttcgac
1800
ccaaccactg cccaacaga aaccaacatt ccccaagac ccacgcctga aggagttcct
1860
gccccagccc ccacctctgt tctgtccacc cctacaacct caggccactg ggagacgag
1920
gaggaggaca aggacacagc agaggacagc agcactgtctg acagatggga cgacgaagac
1980
tggggcagcc tggagcagga ggccgagtc tgcctggccc agcaggagca ctggagcacc
2040
gggggccaag tgagccgtgc tagtcaggtc agcaactccg accacaaatc ctccaaatcc
2100
ccagagtcgg actggagcag ctgggaagct gagggtctct gggaacaggg ctggcaggag
2160
caaagctccc aggagccacc tctgacggt acacggctgg ccagcgagta taactgggt
2220
ggccagagct ccagcgacaa gggcgacccc ttcgtacacc tgtctgcacg tcccagcacc
2280
cagccgaggc cagactcttg ggtgaggac aactgggagg gcctcgagac tgacagtcga
2340
caggtcaagg ctgagctggc ccggaagaag cgcgaggagc ggcggcgagg gatggaggcc
2400
aaacgcgcgc agaggaaggt ggccaagggc cccatgaagc tgggagcccg gaagctggac
2460
tgaaccgttg cgttgccctc tcccggctgc ggagagcccc cccacagat gatatttatg
2520
tacaaccatc gtgagcccg ccggcccagc caggccatct acgtgtaca taatcagagc
2580
cacaataaat tctatttcac accccttgtg ccgggctcag tctagccctc gggagcgggc
2640
tgggtctctg cgcgcctgc gcagcccgcc ccacgtcag acgtgaacat caatttgctt
2700
cgaaagccaa gggtaagag gcacgatctg atttatcagt ttctaggaaa caccctctgg
2760
gaggaagcga ggcagcgccc gccggagacc ttacaaccgc ccgctaaccg gggagggggg
2820
ccggtagggg cgcctcgggt ctcaaggcgc cgggagggtc tgcgggcctc gaaggtccct
2880
gggtccgagc cacaagtcgg ggcagaagtg aggcgagct cgcggaaatc cctcagtgat
2940

caccgaggtc tgggcccagg gcggcgctcg cggcgtcagc ggcggcgctg gggaaacgcag
 3000
 gccccgtgcg ggcggctgcg cgcgaagccg gctttgcaga cgcagcggaa ggagccgctg
 3060
 gtgttcacgc agcgcctcgt cttgcacagc agccccgctt ggttcagctc tcggcactcg
 3120
 tcgatatcca cgcagcgggc gcgggaggcg tcgagctgga agccgccggg acactcgcac
 3180
 acggcgccgc ccggccgcgg cagcagcgg ccactcagc agcgacactc gtctgaatcc
 3240
 tcctctgaac tgctctcatc tcttgagggc ttcactccca ccaggacca gcacggttgt
 3300
 gaggaggttg agcagcccca ccacaagaag gagtgtctacc tgaacttcga tgacacagtg
 3360
 ttctcgaca cgtattggc caccaacgtg acccagcagg agtgctgctg ctctctgggg
 3420
 gccggcc
 3427

<210> 6236

<211> 820

<212> PRT

<213> Homo sapiens

<400> 6236

Pro	Arg	Ala	Pro	Glu	Pro	Ala	Ala	Ala	Val	Gly	Thr	Met	Trp	Phe	Phe
1			5						10					15	
Ala	Arg	Asp	Pro	Val	Arg	Asp	Phe	Pro	Phe	Glu	Leu	Ile	Pro	Glu	Pro
		20					25						30		
Pro	Glu	Gly	Gly	Leu	Pro	Gly	Pro	Trp	Ala	Leu	His	Arg	Gly	Arg	Lys
		35					40				45				
Lys	Ala	Thr	Gly	Ser	Pro	Val	Ser	Ile	Phe	Val	Tyr	Asp	Val	Lys	Pro
		50				55				60					
Gly	Ala	Glu	Glu	Gln	Thr	Gln	Val	Ala	Lys	Ala	Ala	Phe	Lys	Arg	Phe
65				70					75					80	
Lys	Thr	Leu	Arg	His	Pro	Asn	Ile	Leu	Ala	Tyr	Ile	Asp	Gly	Leu	Glu
			85					90					95		
Thr	Glu	Lys	Cys	Leu	His	Val	Val	Thr	Glu	Ala	Val	Thr	Pro	Leu	Gly
			100					105					110		
Ile	Tyr	Leu	Lys	Ala	Arg	Val	Glu	Ala	Gly	Gly	Leu	Lys	Glu	Leu	Glu
		115				120					125				
Ile	Ser	Trp	Gly	Leu	His	Gln	Ile	Val	Lys	Ala	Leu	Ser	Phe	Leu	Val
		130				135					140				
Asn	Asp	Cys	Ser	Leu	Ile	His	Asn	Asn	Val	Cys	Met	Ala	Ala	Val	Phe
145				150						155				160	
Val	Asp	Arg	Ala	Gly	Glu	Trp	Lys	Leu	Gly	Gly	Leu	Asp	Tyr	Met	Tyr
			165					170					175		
Ser	Ala	Gln	Gly	Asn	Gly	Gly	Gly	Pro	Pro	Arg	Lys	Gly	Ile	Pro	Glu
			180					185					190		
Leu	Glu	Gln	Tyr	Asp	Pro	Pro	Glu	Leu	Ala	Asp	Ser	Ser	Gly	Arg	Val
		195					200					205			
Val	Arg	Glu	Lys	Trp	Ser	Ala	Asp	Met	Trp	Arg	Leu	Gly	Cys	Leu	Ile
		210				215					220				
Trp	Glu	Val	Phe	Asn	Gly	Pro	Leu	Pro	Arg	Ala	Ala	Ala	Leu	Arg	Asn


```

        660              665              670
Ala Gln Gln Asp Asp Trp Ser Thr Gly Gln Val Ser Arg Ala Ser
        675              680              685
Gln Val Ser Asn Ser Asp His Lys Ser Ser Lys Ser Pro Glu Ser Asp
        690              695              700
Trp Ser Ser Trp Glu Ala Glu Gly Ser Trp Glu Gln Gly Trp Gln Glu
705              710              715              720
Pro Ser Ser Gln Glu Pro Pro Pro Asp Gly Thr Arg Leu Ala Ser Glu
        725              730              735
Tyr Asn Trp Gly Gly Pro Glu Ser Ser Asp Lys Gly Asp Pro Phe Ala
740              745              750
Thr Leu Ser Ala Arg Pro Ser Thr Gln Pro Arg Pro Asp Ser Trp Gly
755              760              765
Glu Asp Asn Trp Glu Gly Leu Glu Thr Asp Ser Arg Gln Val Lys Ala
770              775              780
Glu Leu Ala Arg Lys Lys Arg Glu Glu Arg Arg Glu Met Glu Ala
785              790              795              800
Lys Arg Ala Glu Arg Lys Val Ala Lys Gly Pro Met Lys Leu Gly Ala
        805              810              815
Arg Lys Leu Asp
        820

```

<210> 6237

<211> 494

<212> DNA

<213> Homo sapiens

<400> 6237

```

cggcctggga ccatggcgcg acatgttccc gatttgaggt gaaacatgaa gagaaaaatag
60
aataacttaat aatgcttttc cgcaaccgct tcttgctgct gctggccctg gctgcgctgc
120
tggcctttgt gagcctcagc ctgcagttct tccacctgat ccggtgtcg actcctaaga
180
atggaatgag tagcaagagt cgaaagagaa tcatgccccg ccctgtgacg gagccccctg
240
tgacagaccc cgtttatgaa gctcttttgt actgcaacat cccagcgtg gccgagcgca
300
gcattggaag tcatgccccg catcatttta agctgtgtct agtgcatgtg ttcatctggc
360
acggagacag gtacccactg tatgtcattc caaaacaaa gcgaccagaa attgactgca
420
ctctggtggc taacaggaaa ccgtatcacc caaaactgga agctttcatt agtcacatgt
480
tgagaggatc cgga
494

```

<210> 6238

<211> 141

<212> FRT

<213> Homo sapiens

<400> 6238

```

Met Leu Phe Arg Asn Arg Phe Leu Leu Leu Leu Ala Leu Ala Ala Leu

```

1	5	10	15
Leu Ala Phe Val Ser Leu Ser Leu Gln Phe Phe His Leu Ile Pro Val			
	20	25	30
Ser Thr Pro Lys Asn Gly Met Ser Ser Lys Ser Arg Lys Arg Ile Met			
	35	40	45
Pro Asp Pro Val Thr Glu Pro Pro Val Thr Asp Pro Val Tyr Glu Ala			
	50	55	60
Leu Leu Tyr Cys Asn Ile Pro Ser Val Ala Glu Arg Ser Met Glu Gly			
	65	70	75
His Ala Pro His His Phe Lys Leu Val Ser Val His Val Phe Ile Arg			
	85	90	95
His Gly Asp Arg Tyr Pro Leu Tyr Val Ile Pro Lys Thr Lys Arg Pro			
	100	105	110
Glu Ile Asp Cys Thr Leu Val Ala Asn Arg Lys Pro Tyr His Pro Lys			
	115	120	125
Leu Glu Ala Phe Ile Ser His Met Leu Arg Gly Ser Gly			
	130	135	140

<210> 6239

<211> 911

<212> DNA

<213> Homo sapiens

<400> 6239

```

nnggcgggtt aaagagcgcg ttgctggctg ggcaacgcgt cttgagaagg ttcaatggcg
60
tggcaggagac tagcggccga gttcctgcag gtgccggcgg tgacgcgggc ttacaccgca
120
gcctgtgtcc tcaccaccgc cgcgggtgcag ctggagctcc tcagccccc tcaactctac
180
ttcaaacccgc acctgtgtt ccggaagttc caggtctgga ggctcgtcac caacttcctc
240
ttcttcgggc ccctgggatt cagcttcttc ttcaacatgc tcttcgtgtt ccgctactgc
300
cgcattctgg aagagggctc ctcccgggc cgcacggcgc acttcgtctt catgtttctc
360
ttcggggggc tccttatgac cctgctggga ctccctggca gcctgttctt cctgggccag
420
gccctcatgg ccattctggt gtacgtgtgg agccgccga gccctcgggt gagggtcaac
480
ttcttcgggc tgcctcactt ccaggcaccc ttctgcctt gggcgctcat gggtctctcg
540
ctgctgtctg gcaactccat cctcgtggac ctgctgggga ttgcggtggg ccatactac
600
tacttctcgg aggacgtctt ccccaaccag cctggaggca agaggctcct gcagaccctt
660
ggcttctctaa agctgctcct ggatgccct gcagaagacc ccaattacct gccctccct
720
gaggaaacagc caggacccca tctgccacc ccgcagcagt gacccccacc caggggccagg
780
cctaagaggc ttctggcagc ttccatccta ccatgaccc ctacttgggg gcagaaaaac
840
ccatcctaaa ggctggggcc atgcaagggc ccacctgaat aaacagaatg agctgcacaaa
900

```

aaaaaaaaa a
911

<210> 6240

<211> 235

<212> PRT

<213> Homo sapiens

<400> 6240

```
Met Ala Trp  Gln Gly Leu  Ala Ala  Glu  Phe  Leu  Gln  Val  Pro  Ala  Val
 1              5              10              15
Thr Arg Ala  Tyr  Thr  Ala  Ala  Cys  Val  Leu  Thr  Thr  Ala  Ala  Val  Gln
      20              25              30
Leu Glu Leu Leu Ser Pro Phe Gln Leu Tyr Phe Asn Pro His Leu Val
      35              40              45
Phe Arg Lys Phe Gln Val Trp Arg Leu Val Thr Asn Phe Leu Phe Phe
      50              55              60
Gly Pro Leu Gly Phe Ser Phe Phe Phe Asn Met Leu Phe Val Phe Arg
      65              70              75              80
Tyr Cys Arg Met Leu Glu Glu Gly Ser Phe Arg Gly Arg Thr Ala Asp
      85              90              95
Phe Val Phe Met Phe Leu Phe Gly Gly Val Leu Met Thr Leu Leu Gly
      100             105             110
Leu Leu Gly Ser Leu Phe Phe Leu Gly Gln Ala Leu Met Ala Met Leu
      115             120             125
Val Tyr Val Trp Ser Arg Arg Ser Pro Arg Val Arg Val Asn Phe Phe
      130             135             140
Gly Leu Leu Thr Phe Gln Ala Pro Phe Leu Pro Trp Ala Leu Met Gly
      145             150             155             160
Phe Ser Leu Leu Leu Gly Asn Ser Ile Leu Val Asp Leu Leu Gly Ile
      165             170             175
Ala Val Gly His Ile Tyr Tyr Phe Leu Glu Asp Val Phe Pro Asn Gln
      180             185             190
Pro Gly Gly Lys Arg Leu Leu Gln Thr Pro Gly Phe Leu Lys Leu Leu
      195             200             205
Leu Asp Ala Pro Ala Glu Asp Pro Asn Tyr Leu Pro Leu Pro Glu Glu
      210             215             220
Gln Pro Gly Pro His Leu Pro Pro Pro Gln Gln
      225             230             235
```

<210> 6241

<211> 1515

<212> DNA

<213> Homo sapiens

<400> 6241

```
tgccggcgct gccttggaacc cagcgccacc cgcacacggc gctccgctag ccaggccggg
60
agcaagagcc aggcggtgga gaagccgccg tcggagaagc cgcggctgag gcgctcgtcg
120
cgccggggccc caggaggagg gcggggggag ccgccgcgcg ctgagctggc gttgctcccg
180
ccaccgccgc cgccgccgcc gactcccgcg accccgacgt cctcggcgctc caaccgtggac
240
```

ctggggcagc agcgggacgc ctggggagacg ttccagaagc ggcagaagct tacctccgag
 300
 ggtgccgcca agctcctgct agacaccttt gaataccagg gcctgggtgaa gcacacagga
 360
 ggctgccact gtggagcagt tcgttttgaa gtttgggcct cagcagactt gcataatatt
 420
 gactgcaatt gcagcatttg caagaagaag cagaatagac acttcattgt tccagcttct
 480
 cgcttcaagc tcctgaaggg agctgagcac ataacgactt acacgttcaa tactcaciaa
 540
 gccacgata ccttctgtaa gagatgtggc gttcagagct tctatactcc acgatcaaac
 600
 cccggaggct tcggaattgc cccccactgc ctggatgagg gcactgtgag gagtatggtc
 660
 actgaggaat tcaatggcag cgattgggag aagccatga aagagcacia gaccatcaag
 720
 aacatgtcta aagagtgcgc ttctgcctct cctgccttga aaaggaggaa tgattggggc
 780
 cagcaacttt gctctccctg ccgtgcctcg gtgggtgctcc tgaatgtggc tgacctgggc
 840
 tgctgggtcc gttgactagg gtcactctga tctctgcagt ttgtccagc taccagtttc
 900
 tttaggcagc tctttgtctc cctctgtccc agattttgat gtagtctaag tgacatcctt
 960
 ctcttcccaa cttttgtgtg atccagcaga gcattgtgaga ctctttgata tgcaccttca
 1020
 tgtattatct tgttcagttc tctgaggttg ggatcattat tatttcccat tttgcagatg
 1080
 agagaattga ggcagagaaa ggttcagcac cttgcctttg gttacacagc tggctattct
 1140
 ggcttcaatc gcaggactac cagcctgtgc tcttcaccac ttagcttccc tgactcaggc
 1200
 cacttccctg gagcgttagc tggattctga gagtagtttc caagccagag ctttcagaga
 1260
 gcttttgttc gtaggacaat tttaagacat caggttcttg aatgttttgt gtttttttaa
 1320
 gtctcagatt tatcttccca ctctctactt ctccaaaaag actgagagct gacatatttg
 1380
 attgtaagct ctttgaggca gagttcttgt aatcgtctct gtataaaaca gtgccacccc
 1440
 cagtgcacctg tacttgggat cttcaatcag agctgtcctg ttataatagag caagtttttc
 1500
 ctgacccac attct
 1515

<210> 6242

<211> 245

<212> PRT

<213> Homo sapiens

<400> 6242

Cys Gly Arg Cys Leu Gly Pro Ser Ala Thr Arg Thr Arg Arg Ser Ala

1

5

10

15

Ser Gln Ala Gly Ser Lys Ser Gln Ala Val Glu Lys Pro Pro Ser Glu

	20		25		30
Lys	Pro	Arg	Leu	Arg	Arg
	35			Ser	Ser
				Arg	Arg
				Ala	Pro
Gly	Glu	Pro	Pro	Pro	Glu
	50			Leu	Leu
				Pro	Pro
				Pro	Pro
Pro	Pro	Pro	Thr	Pro	Ala
	65			Ser	Ser
				Ala	Ser
				Asn	Leu
Leu	Gly	Glu	Gln	Arg	Asp
	85			Ala	Trp
				Glu	Thr
				Phe	Gln
				Lys	Arg
				Gln	Lys
Leu	Thr	Ser	Glu	Gly	Ala
	100			Thr	Phe
				Glu	Tyr
Gln	Gly	Leu	Val	Lys	His
	115			Thr	Gly
				Cys	His
				Cys	Gly
				Ala	Val
Phe	Glu	Val	Trp	Ala	Ser
	130			Asp	Leu
				His	Ile
				Phe	Asp
				Cys	Asn
Ser	Ile	Cys	Lys	Lys	Gln
	145			Asn	Arg
				His	Phe
				Ile	Val
				Pro	Ala
Arg	Phe	Lys	Leu	Leu	Lys
	165			Gly	Ala
				Glu	His
				Ile	Thr
				Thr	Tyr
				Thr	Phe
Asn	Thr	His	Lys	Ala	Gln
	180			His	Thr
				Phe	Cys
				Lys	Arg
				Cys	Gly
Ser	Phe	Tyr	Thr	Pro	Arg
	195			Ser	Asn
				Pro	Gly
				Gly	Phe
				Gly	Ile
				Ala	Pro
His	Cys	Leu	Asp	Glu	Gly
	210			Thr	Val
				Arg	Ser
				Met	Val
				Thr	Glu
Asn	Gly	Ser	Asp	Trp	Glu
	225			Lys	Ala
				Met	Lys
				Glu	His
				Lys	Thr
				Ile	Lys
Asn	Met	Ser	Lys	Glu	
	245				

<210> 6243

<211> 326

<212> DNA

<213> Homo sapiens

<400> 6243

gcgcgccacagg gagagaagga gaggaactga tggaacaaag tcaaagagga agtgggataa

60

gataggacat aaggacacgt ggagcattca gatccagaga ggatgatcag caccctcttc

120

tctgagacca gaggggacaaa ccataatgag tgaagagatg aggacattct taaagtggag

180

ctagcaaaagc tggggaatggc cttccacaag aggaacacct agactggacc cagaatagta

240

aaggtagggtt tggggacttg aggcaagtga gaaagctctg gaaatgcgcg tggataaatt

300

ctgtagggat gcattcctgg agagtg

326

<210> 6244

<211> 104

<212> PRT

<213> Homo sapiens

<400> 6244

```

Met His Pro Tyr Arg Ile Tyr Pro Ala Ala Phe Pro Glu Leu Ser His
 1             5             10             15
Leu Pro Gln Val Pro Lys Pro Thr Phe Thr Ile Leu Gly Pro Val Leu
      20             25             30
Gly Phe Leu Leu Trp Lys Ala Ile Pro Ser Phe Ala Ser Ser Thr Leu
      35             40             45
Arg Met Ser Ser Ser Leu His Ser Leu Trp Phe Val Pro Leu Val Ser
      50             55             60
Glu Glu Glu Val Leu Ile Ile Leu Ser Gly Ser Glu Cys Ser Thr Cys
      65             70             75             80
Pro Tyr Val Leu Ser Tyr Pro Thr Ser Ser Leu Thr Leu Phe His Gln
      85             90             95
Phe Leu Ser Phe Ser Pro Trp Arg
      100

```

<210> 6245

<211> 6609

<212> DNA

<213> Homo sapiens

<400> 6245

```

tctggagtct ccctcatttt gaatatatct ctctgggtctt tgggctgctg attttaaaat
 60
aagttctctg ttcaagtcaa cctgttactt gccattggat ggtaatatct gacttttcaa
120
tcttatctctg attgataagc ggaactccag tttttgcctt ctctttgccc cagaatttgg
180
agacctgggg cctctccctt getttttctc tctttcttag atttttctca gtgtccccgt
240
ttagtcttcc ctccctcagct tggtcctga gaacatttgc tgcgtctttt tttttttag
300
gtgttggaca atcagataaa gaaagacctg gctgacaagg agacactgga gaacatgatg
360
cagagacacg agggaggagg ccatgagaag ggcaaaattc tcagcgcaaca gaaggcgatg
420
atcaatgcta tggattccaa gatcagatcc ctggaacaga ggattgtgga actgtctgaa
480
gccaataaac ttgcagcaaa tagcagctctt tttaaccaa ggaacatgaa ggcccaagaa
540
gagatgattt ctgaactcag gcaacagaaa ttttacctgg agacacaggc tggggaagtg
600
gaggcccgaa accgaaaact ggaggagcag ctggagaaga tcagccacca agaccacagt
660
gacaagaatc ggctgctgga actggagaca agattgcggg aggtcagttc agagcacgag
720
gagcagaaac tggagctcaa gcgccagctc acagagctac agctctccct gcaggagcgc
780
gagtcacagt tgacagccct gcaggctgca cggggcgccc tggagagcca gcttcgccag
840
gcgaagacag agctggaaga gaccacagca gaagctgaag aggagatcca ggcatcagc
900
gcacatagag atgaaatcca gcgcaaatct gatgctcttc gtaacagctg tactgtaatc
960

```

acagaccctgg aggagcagct aaaccagctg accgaggaca acgctgaact caacaaccaa
1020
aacttctact tgtccaaaca actcagatgag gcttctggcg ccaacgacga gattgtacaa
1080
ctgcgaagtg aagtggacca tctccgccgg gagatcacgg aacgagagat gcagcttacc
1140
agccagaagc aaacgatgga ggctctgaag accacgtgca ccatgctgga ggaacaggtc
1200
atggatttgg aggccctaaa cgatgagctg ctagaaaaag agcggcagtg ggaaggcctgg
1260
aggagcgtcc tgggtgatga gaaatcccag tttgagtgtc ggggttcgaga gctgcagaga
1320
atgctggaca ccgagaaaca gagcaggggcg agagccgcatc agcggatcac cgagtctcgc
1380
caggtgtgtg agctggcagt gaaggagcac aaggctgaga ttctcgctct gcacagggt
1440
ctcaagagc agaagctgaa ggccgagagc ctctctgaca agctcaatga cctggagaag
1500
aagcatgcta tgcttgaaat gaatgccoga agcttacaga agaagctgga gactgaacga
1560
gagctcaaac agaggcttct ggaagagcaa gccaaattac agcagcagat ggacctgcag
1620
aaaaatcaca ttttccgtct gactcaagga ctgcaagaag ctctagatcg ggctgatcta
1680
ctgaagacag aaagaagtga ctctgagtat cagctggaaa acattcaggt tctctattct
1740
catgaaaagg tgaaaatgga aggcactatt tctcaacaaa ccaaactcat tgattttctg
1800
caagccaaaa tggaccaacc tgctaaaaag aaaaagggtc ctctgcagta caatgagctg
1860
aagctggccc tggagaagga gaaagctcgc tgtgcagagc tagaggaagc ccttcagaag
1920
accgcacatc agctccggtc cgcccgagg gaagctgccc accgcaaacg aacggaccac
1980
ccaccacccat ccacgcagc caccgcgagg cagcagatcg ccatgtctgc catcgtgcgg
2040
tcgccagagc accagcccag tgccatgagc ctgctggccc cgccatccag ccgacagaag
2100
gagtcttcaa ctccagagga atttagtcgg cgtcttaagg aacgcagtga ccacaatat
2160
cctcaccgat tcaacgtagg actgaacatg cgagccacaa agtgtgtgtgt gtgtctggat
2220
accgtgcact ttggacgcca ggcacccaaa tgtctcgaat gtcaggtgat gtgtcaccoc
2280
aagtgtctca cgtgcttgcc agccacctgc ggtctgcctg ctgaatatgc cacacacttc
2340
accgaggcct tctgccgtga caaaatgaac tcccaggtc tccagaccaa ggagcccagc
2400
agcagccttg acctggaagg gtggatgaag gtgcccagga ataacaaacg aggcagacaa
2460
ggctgggaca ggaagtacat tgtctctggag ggatcaaaa tccctattta tgacaatgaa
2520
gccagagaag ctggacagag gccggtggaa gaatttgagc tgtgccttcc cgacggggat
2580

gtatctatctc atgggtgccgt tgggtcttcc gaactcgcaa atacagccaa agcagatgtc
2640
ccatacatat tgaagatgga atctcaccgc caccaccctt gctggcccg gagaaccttc
2700
tacttgctag ctcccagctt ccctgacaaa cagcgtggg tcaccgcctt agaatacgtt
2760
gtgcaggtg ggagagtctt tagggaaaa gcagaagctg atgctaaact gcttggaaa
2820
tcctgctga aactggaagg tgatgaccgt ctacacatga actgcacgct gcccttcagt
2880
gaccaggtg tggtggtggg caccgaggaa gggctctacg ccctgaatgt cttgaaaaac
2940
tccttaaccc atgtcccagg aattggagca gtcttccaaa ttatatttat caaggacctg
3000
gagaagctac toatgatagc aggagaagag cgggcactgt gtcttggtga cgtgaagaaa
3060
gtgaacagct ccctggccca gtcccacctg cctgccagc cgcacatctc acccaacatt
3120
tttgaagctg tcaagggtcg ccaactgttt ggggcaggca agattgagaa cgggctctgc
3180
atctgtgcag ccattgcccag caaagtcgtc attctccgct acaacgaaaa cctcagcaaa
3240
tactgcatcc ggaagagatc agagacctca gagccctgca gctgtatcca cttcaccaat
3300
tacagtatcc tcattggaac caataaatc tacgaaatgc acatgaagca gtacacgtgc
3360
gagggaattc tggataagaa tgaccattcc ttggccacct ctgtgtttgc cgcctcttcc
3420
aacagcttcc ctgtctcaat cgtgcagggt aacagcgagc ggcagcgaga ggagtaattg
3480
ctgtgtttcc acgaatttgg agtggtctgt gattcttaac gaagacgtag cgcacagac
3540
gatctcaagt ggagtcgctt acctttggcc ttgtcctaca gagaacctc tctgtttgtg
3600
accacttca actcactcga agtaattgag atccaggcac gctcctcagc agggaccctt
3660
gcccagagct acctggacat ccggaaccgc cgctacctgt gccctgccat ttcttcagga
3720
gcgatttact tggcgctctc ataccaggat aaattaaggg tcatttgcgt caagggaaaac
3780
ctcgtgaagg agtcggcac tgaacaccac cggggcccgct ccacctcccg cagcagcccc
3840
aacaagcgag gccaccacc gtacaacgag cacatcacca agcgcgtggc ctccagccca
3900
gcgccgcccg aaggccccag ccaccgcga gagccaagca cccccaccg ctaccgcgag
3960
ggcgcgaccg agctgcgcag ggacaagtct cctggcgccc ccctggagcg agagaagtcc
4020
cccgccgga tgctcagcac gcggagagag cgggtccccc ggaggctgtt tgaagacagc
4080
agcaggggccc ggtgcctgc gggagccgtg agggacccgc tgtcccaggt gaacaaggtc
4140
tgggaaccagt cttcagtata aatctcagcc agaaaaacca actcctcctc ttgatctgca
4200

ggaaacacc aaacacacta tggaactctg ctgatgggga cccaagcgcc cactgctca
4260
gccaccctct ggctcagcgg gggccagacc cactcggca cggacacccc tgtctccagg
4320
aggggcaggt ggctgaggct ctctggagct gtcagcgccc ggtgcctgcc ctgggcaacct
4380
ccctcagtc atctctttgc actttgttac tctttcaaag cattcacaaa cttttgtacc
4440
tagctctagc ctgtaccagt tagttcatca aaggaaacca accgggatgc taactacaac
4500
atgggttagaa tcttaattag ctactttaag atcctaggat tggttggttt tctctttttt
4560
ttctcttttg tttctttcct tttttttttt tttttttaag acaacagaat tcttaataga
4620
tttgaatagc gacgtatttc ctgtttagt catttttagc tcgaccacat catcaggctc
4680
ttgccaccga ggcatagtgt agaacagtc ccggtcagtg gccaacctcc cgcagccaag
4740
taggttcac cttgttctg ttcattctca tagatggccc tgcctttccc aggggtgacat
4800
cgtagccaaa tgtttactgt tttcattgcc ttttatggcc ttgacgactt cccctccac
4860
cagcttgaaa tgtatggagg tcatcggggc ctcagctcgg aggcagtgc ttggggccaa
4920
gggacctcga gacgtcttcc tccccccccc ccagcgtca tctccccagc ctgctgttcc
4980
cgctttccat atagcttttg ccaggaaagc atgcaataga cttgctcgga gccccagcact
5040
cctgggtctc ggggtcgggg aggggacggg ggcacccact tccttgctg tgacggcggtg
5100
ttgttcccca ctctgggatg gggagaggc ccgtcgggag ttctgcatgg cagttcactg
5160
catgtgctgc cccctgggtg tgcctcgcca atgtattaat accatcccat agctcctgccc
5220
aaatcgagac cctctgacga cttgccgact aactggccac cacaagctgc agtctgtagc
5280
actgaacaaa caaaaaacaa aacgctcaag ccttacgacc agagaaggat ttcagcaaac
5340
caccacclcc cactcagtg cccctccaaa cttcacactt cctgctctgc agaggatgac
5400
tctgttcaca ccaatccag cgcggttcta cccacgaaa ctgtgacttt ccaaatgagc
5460
ctttccctag ggctagacct aagaccagga agtttgagag agcagccgca gctcaactct
5520
tcagctccg ccagggttgg gaagtcctta ggtgcagtgc ggctccactt gggctctgcg
5580
gacctccta ttagagtacg aaattcctgg caactggtat agaaccaacc tagaggcttt
5640
gcagttggca agctaactcg cggccttatt tctgccttta atctcccaca aggcactctgt
5700
tgctttgggt cctccacgac tcttaggccc gcctcaacaa cccaggcacc tcctaggtag
5760
gctcaagggt agaccggttt ccaccgcagc aggtgaacat gacctggttt tcaactgtgt
5820

ccacagttca gatccctttc cagattgcaa cctggcctgc atcccagctc cttcctgctc
 5880
 gtgtccttaac ctaagtgtt tcttggttga aacccctaca aacctccatg tggtagctcc
 5940
 ttgggcaaat gtccctgtgt ggcgttttat gtgtgcttg gagtctgtgg ggtcgtactc
 6000
 cctccctcc cgccccagg gcagatttga ttgaatgttt gctgaagtgt tgctcttgg
 6060
 tccacagtat ttggaaaggt cactgaaaat gggctcttca gtcttggcat ttcatttagg
 6120
 atctccatga gaaatgggct tcttgagccc tgaaaatgta tattgtgtgt ctcatctgtg
 6180
 aactgctttc tgctatatag aactagctca aaagactgta catatttaca agaaaacttta
 6240
 tattcgtaaa aaaaaaaga ggaaattgaa ttggtttcta cttttttatt gtaaaagggtg
 6300
 catttttcaa cacttacttt tggtttcaat ggtggtagt gtggacagcc atcttcactg
 6360
 gaggtgggg agctccgtgt gaccaccaag atgccagcag gatataccgt aacacgaaat
 6420
 tgctgtcaaa agcttatttag catcaatcaa gattctaggt ctccaaaagt acaggctttt
 6480
 tcttcattac cttttttatt cagaacgagg aagagaacac aaggaatgat tcaagatcca
 6540
 ccttgagagg aatgaacttt gttgttgaac aattagttaa ataaagcaat gatctaaact
 6600
 aaaaaaaaa
 6609

<210> 6246

<211> 1286

<212> PRT

<213> Homo sapiens

<400> 6246

Val	Leu	Asp	Asn	Gln	Ile	Lys	Lys	Asp	Leu	Ala	Asp	Lys	Glu	Thr	Leu
1			5					10					15		
Glu	Asn	Met	Met	Gln	Arg	His	Glu	Glu	Glu	Ala	His	Glu	Lys	Gly	Lys
		20					25					30			
Ile	Leu	Ser	Glu	Gln	Lys	Ala	Met	Ile	Asn	Ala	Met	Asp	Ser	Lys	Ile
	35					40					45				
Arg	Ser	Leu	Glu	Gln	Arg	Ile	Val	Glu	Leu	Ser	Glu	Ala	Asn	Lys	Leu
	50			55						60					
Ala	Ala	Asn	Ser	Ser	Leu	Phe	Thr	Gln	Arg	Asn	Met	Lys	Ala	Gln	Glu
65			70					75						80	
Glu	Met	Ile	Ser	Glu	Leu	Arg	Gln	Gln	Lys	Phe	Tyr	Leu	Glu	Thr	Gln
		85					90					95			
Ala	Gly	Lys	Leu	Glu	Ala	Gln	Asn	Arg	Lys	Leu	Glu	Glu	Gln	Leu	Glu
		100				105						110			
Lys	Ile	Ser	His	Gln	Asp	His	Ser	Asp	Lys	Asn	Arg	Leu	Leu	Glu	Leu
	115					120					125				
Glu	Thr	Arg	Leu	Arg	Glu	Val	Ser	Leu	Glu	His	Glu	Glu	Gln	Lys	Leu
	130			135							140				
Glu	Leu	Lys	Arg	Gln	Leu	Thr	Glu	Leu	Gln	Leu	Ser	Leu	Gln	Glu	Arg

145 150 155 160
 Glu Ser Gln Leu Thr Ala Leu Gln Ala Ala Arg Ala Ala Leu Glu Ser
 165 170 175
 Gln Leu Arg Gln Ala Lys Thr Glu Leu Glu Thr Thr Ala Glu Ala
 180 185 190
 Glu Glu Glu Ile Gln Ala Leu Thr Ala His Arg Asp Glu Ile Gln Arg
 195 200 205
 Lys Phe Asp Ala Leu Arg Asn Ser Cys Thr Val Ile Thr Asp Leu Glu
 210 215 220
 Glu Gln Leu Asn Gln Leu Thr Glu Asp Asn Ala Glu Leu Asn Asn Gln
 225 230 235 240
 Asn Phe Tyr Leu Ser Lys Gln Leu Asp Glu Ala Ser Gly Ala Asn Asp
 245 250 255
 Glu Ile Val Gln Leu Arg Ser Glu Val Asp His Leu Arg Arg Glu Ile
 260 265 270
 Thr Glu Arg Glu Met Gln Leu Thr Ser Gln Lys Gln Thr Met Glu Ala
 275 280 285
 Leu Lys Thr Thr Cys Thr Met Leu Glu Glu Gln Val Met Asp Leu Glu
 290 295 300
 Ala Leu Asn Asp Glu Leu Leu Glu Lys Glu Arg Gln Trp Glu Ala Trp
 305 310 315 320
 Arg Ser Val Leu Gly Asp Glu Lys Ser Gln Phe Glu Cys Arg Val Arg
 325 330 335
 Glu Leu Gln Arg Met Leu Asp Thr Glu Lys Gln Ser Arg Ala Arg Ala
 340 345 350
 Asp Gln Arg Ile Thr Glu Ser Arg Gln Val Val Glu Leu Ala Val Lys
 355 360 365
 Glu His Lys Ala Glu Ile Leu Ala Leu Gln Gln Ala Leu Lys Glu Gln
 370 375 380
 Lys Leu Lys Ala Glu Ser Leu Ser Asp Lys Leu Asn Asp Leu Glu Lys
 385 390 395 400
 Lys His Ala Met Leu Glu Met Asn Ala Arg Ser Leu Gln Gln Lys Leu
 405 410 415
 Glu Thr Glu Arg Glu Leu Lys Gln Arg Leu Leu Glu Glu Gln Ala Lys
 420 425 430
 Leu Gln Gln Gln Met Asp Leu Gln Lys Asn His Ile Phe Arg Leu Thr
 435 440 445
 Gln Gly Leu Gln Glu Ala Leu Asp Arg Ala Asp Leu Leu Lys Thr Glu
 450 455 460
 Arg Ser Asp Leu Glu Tyr Gln Leu Glu Asn Ile Gln Val Leu Tyr Ser
 465 470 475 480
 His Glu Lys Val Lys Met Glu Gly Thr Ile Ser Gln Gln Thr Lys Leu
 485 490 495
 Ile Asp Phe Leu Gln Ala Lys Met Asp Gln Pro Ala Lys Lys Lys
 500 505 510
 Val Pro Leu Gln Tyr Asn Glu Leu Lys Leu Ala Leu Glu Lys Glu Lys
 515 520 525
 Ala Arg Cys Ala Glu Leu Glu Glu Ala Leu Gln Lys Thr Arg Ile Glu
 530 535 540
 Leu Arg Ser Ala Arg Glu Glu Ala Ala His Arg Lys Ala Thr Asp His
 545 550 555 560
 Pro His Pro Ser Thr Pro Ala Thr Ala Arg Gln Gln Ile Ala Met Ser
 565 570 575
 Ala Ile Val Arg Ser Pro Glu His Gln Pro Ser Ala Met Ser Leu Leu

580										585					590				
Ala	Pro	Pro	Ser	Ser	Arg	Arg	Lys	Glu	Ser	Ser	Thr	Pro	Glu	Glu	Phe				
		595					600					605							
Ser	Arg	Arg	Leu	Lys	Glu	Arg	Met	His	His	Asn	Ile	Pro	His	Arg	Phe				
	610					615					620								
Asn	Val	Gly	Leu	Asn	Met	Arg	Ala	Thr	Lys	Cys	Ala	Val	Cys	Leu	Asp				
625					630					635					640				
Thr	Val	His	Phe	Gly	Arg	Gln	Ala	Ser	Lys	Cys	Leu	Glu	Cys	Gln	Val				
				645						650				655					
Met	Cys	His	Pro	Lys	Cys	Ser	Thr	Cys	Leu	Pro	Ala	Thr	Cys	Gly	Leu				
			660						665				670						
Pro	Ala	Glu	Tyr	Ala	Thr	His	Phe	Thr	Glu	Ala	Phe	Cys	Arg	Asp	Lys				
	675						680					685							
Met	Asn	Ser	Pro	Gly	Leu	Gln	Thr	Lys	Glu	Pro	Ser	Ser	Ser	Leu	His				
	690					695					700								
Leu	Glu	Gly	Trp	Met	Lys	Val	Pro	Arg	Asn	Asn	Lys	Arg	Gly	Gln	Gln				
705					710					715					720				
Gly	Trp	Asp	Arg	Lys	Tyr	Ile	Val	Leu	Glu	Gly	Ser	Lys	Val	Leu	Ile				
				725						730				735					
Tyr	Asp	Asn	Glu	Ala	Arg	Glu	Ala	Gly	Gln	Arg	Pro	Val	Glu	Glu	Phe				
			740						745				750						
Glu	Leu	Cys	Leu	Pro	Asp	Gly	Asp	Val	Ser	Ile	His	Gly	Ala	Val	Gly				
	755						760					765							
Ala	Ser	Glu	Leu	Ala	Asn	Thr	Ala	Lys	Ala	Asp	Val	Pro	Tyr	Ile	Leu				
	770					775					780								
Lys	Met	Glu	Ser	His	Pro	His	Thr	Cys	Tyr	Pro	Gly	Arg	Tyr	Leu	Leu				
785					790					795					800				
Tyr	Leu	Leu	Ala	Pro	Ser	Phe	Pro	Asp	Lys	Gln	Arg	Trp	Val	Thr	Ala				
			805						810					815					
Leu	Glu	Ser	Val	Val	Ala	Gly	Gly	Arg	Val	Ser	Arg	Glu	Lys	Ala	Glu				
			820						825				830						
Ala	Asp	Ala	Lys	Leu	Leu	Gly	Asn	Ser	Leu	Leu	Lys	Leu	Glu	Gly	Asp				
	835						840						845						
Asp	Arg	Leu	Asp	Met	Asn	Cys	Thr	Leu	Pro	Phe	Ser	Asp	Gln	Val	Val				
	850					855					860								
Leu	Val	Gly	Thr	Glu	Glu	Gly	Leu	Tyr	Ala	Leu	Asn	Val	Leu	Lys	Asn				
865					870					875					880				
Ser	Leu	Thr	His	Val	Pro	Gly	Ile	Gly	Ala	Val	Phe	Gln	Ile	Tyr	Ile				
			885							890				895					
Ile	Lys	Asp	Leu	Glu	Lys	Leu	Leu	Met	Ile	Ala	Gly	Glu	Glu	Arg	Ala				
			900					905					910						
Leu	Cys	Leu	Val	Asp	Val	Lys	Lys	Val	Lys	Gln	Ser	Leu	Ala	Gln	Ser				
			915				920						925						
His	Leu	Pro	Ala	Gln	Pro	Asp	Ile	Ser	Pro	Asn	Ile	Phe	Glu	Ala	Val				
	930					935					940								

1010 1015 1020
 Asp Lys Asn Asp His Ser Leu Ala Pro Ala Val Phe Ala Ala Ser Ser
 1025 1030 1035 1040
 Asn Ser Phe Pro Val Ser Ile Val Gln Val Asn Ser Ala Gly Gln Arg
 1045 1050 1055
 Glu Glu Tyr Leu Leu Cys Phe His Glu Phe Gly Val Phe Val Asp Ser
 1060 1065 1070
 Tyr Gly Arg Arg Ser Arg Thr Asp Asp Leu Lys Trp Ser Arg Leu Pro
 1075 1080 1085
 Leu Ala Phe Ala Tyr Arg Glu Pro Tyr Leu Phe Val Thr His Phe Asn
 1090 1095 1100
 Ser Leu Glu Val Ile Glu Ile Gln Ala Arg Ser Ser Ala Gly Thr Pro
 1105 1110 1115 1120
 Ala Arg Ala Tyr Leu Asp Ile Pro Asn Pro Arg Tyr Leu Gly Pro Ala
 1125 1130 1135
 Ile Ser Ser Gly Ala Ile Tyr Leu Ala Ser Ser Tyr Gln Asp Lys Leu
 1140 1145 1150
 Arg Val Ile Cys Cys Lys Gly Asn Leu Val Lys Glu Ser Gly Thr Glu
 1155 1160 1165
 His His Arg Gly Pro Ser Thr Ser Arg Ser Ser Pro Asn Lys Arg Gly
 1170 1175 1180
 Pro Pro Thr Tyr Asn Glu His Ile Thr Lys Arg Val Ala Ser Ser Pro
 1185 1190 1195 1200
 Ala Pro Pro Glu Gly Pro Ser His Pro Arg Glu Pro Ser Thr Pro His
 1205 1210 1215
 Arg Tyr Arg Glu Gly Arg Thr Glu Leu Arg Arg Asp Lys Ser Pro Gly
 1220 1225 1230
 Arg Pro Leu Glu Arg Glu Lys Ser Pro Gly Arg Met Leu Ser Thr Arg
 1235 1240 1245
 Arg Glu Arg Ser Pro Gly Arg Leu Phe Glu Asp Ser Ser Arg Gly Arg
 1250 1255 1260
 Leu Pro Ala Gly Ala Val Arg Thr Pro Leu Ser Gln Val Asn Lys Val
 1265 1270 1275 1280
 Trp Asp Gln Ser Ser Val
 1285

<210> 6247

<211> 497

<212> DNA

<213> Homo sapiens

<400> 6247

gcggccgcag cgctgaatgg ggtggaccga cgctccctcg agcgttcaca agcgtggtc
 60
 tagaagtgtc ggagagggcc aagaggagg cggtggactg gcatgccctg gagcgctcca
 120
 aaggctcat gggggctcct gcccgaggag cgccccacct agagaaacag ccggcagccg
 180
 gcccgacgag cggttcctccg ggagagaaat attattcacc ttgcccagag gaaggagggg
 240
 caacccatgt ctatcggtat cacagaggcg agtcgaagct gcacatgtgc ttggacatat
 300
 ggaatggtca gagaaaagac agaaaaaga catcccttgg tcctggaggc agcatcaaca
 360

tatcagagca tgctccagag gcatcccccag ctgtgagtag ggaactgctt acgcactggg
 420
 ttccaccacc gttgcaactc catgaaccag ttgacatggt tcttagaggg ctatttgaat
 480
 tgagtctata gtattttt
 497

<210> 6248

<211> 142

<212> PRT

<213> Homo sapiens

<400> 6248

Met	Gly	Trp	Thr	Asp	Val	Pro	Cys	Ser	Val	His	Lys	Ala	Gly	Ser	Arg
1				5					10					15	
Ser	Ala	Gly	Glu	Gly	Gln	Glu	Glu	Gly	Gly	Leu	Ala	Cys	Pro	Gly	
			20					25					30		
Ala	Ser	Gln	Arg	Leu	His	Gly	Gly	Pro	Cys	Pro	Gly	Gly	Ala	Pro	Pro
		35				40						45			
Arg	Glu	Thr	Ala	Gly	Ser	Arg	Pro	Ala	Ala	Arg	Ser	Pro	Gly	Arg	Glu
	50				55					60					
Ile	Leu	Phe	Ile	Cys	Ala	Arg	Gly	Arg	Arg	Gly	Asn	Pro	Cys	Leu	Ser
65				70				75						80	
Leu	Ser	Gln	Arg	Arg	Val	Glu	Ala	Ala	His	Val	Leu	Gly	His	Arg	Glu
			85					90					95		
Trp	Ser	Glu	Lys	Arg	Gln	Lys	Lys	Asp	Ile	Pro	Trp	Ser	Trp	Arg	Gln
			100				105						110		
Leu	Ser	Asn	Ile	Arg	Ala	Cys	Ser	Arg	Gly	Ile	Pro	Ala	Cys	Glu	Tyr
		115				120						125			
Gly	Thr	Ala	Tyr	Ala	Leu	Gly	Phe	Thr	Thr	Val	Ala	Thr	Pro		
		130				135						140			

<210> 6249

<211> 1217

<212> DNA

<213> Homo sapiens

<400> 6249

nntgagcaac aaaccgagtt ctggagaacg ccatcagctc gctgcttaaa ctggaaacaa
 60
 aagtctcaac ttccaacctc ttgcagcta ggagtggcca agtagcatag atctggtgaa
 120
 tgaactgcag gtgggaattt ctgagaaggt ttccttctta aatagaaaga ttaaacacaa
 180
 ggttcatta tgggtcgact tgatgggaaa gtcacatccc tgacggccgc tgctcagggg
 240
 attggccaag cagctgcctt agcttttgca agagaagggt ccaaagtcac agccacagac
 300
 attaatgagt ccaaacttca ggaactggaa aagtaccggg gtattcaaac tcgtgtcctt
 360
 gatgtcacia agaagaaca aattgatcag ttgccaatg aagttgagag acttgatggt
 420
 ctcttaaatg ttgtcggttt tgtccatcat ggaactgtcc tggattgtga ggagaaagac
 480

tgggacttct cgatgaatct caatgtgccc agcatgtacc tgatgatcaa ggcattcctt
 540
 cctaaaatgc ttgctcagaa atctggcaat attatcaaca tgtcttctgt ggcctccagc
 600
 gtcaaaggag ttgtgaacag atgtgtgtac agcacaacca aggcagccgt gattggcctc
 660
 acaaaatctg tggctgcaga ttcatccag cagggcatca ggtgcaactg tgtgtgccca
 720
 ggaacagttg atacgccatc tctacaagaa agaatacaag ccagaggaaa tcttgaagag
 780
 gcacggaaatg atttctctgaa gagacaaaag acgggaagat tcgcaactcg agaagaaata
 840
 gccatgctct gcgtgtatct ggcttctgat gaatctgctt atgtaactgg taacctgtgc
 900
 atcattgatg gagggctggag cttgtgattt taggatctcc atgggtgggaa ggaaggcagg
 960
 ccttctctat ccacagttaa cctgggttacg aagaaaactc accaatcatc tcttctctgt
 1020
 taatcacatg ttaatgaaaa taagctcttt ttaatgatgt cactgtttgc aagagtctga
 1080
 ttctttaagt atattaatct ctttgaatc tcttctgaaa tcattgtaaa gaaataaaaa
 1140
 tattgaactc atagcaggag aatagttttt aaaataaatc tcgatttggt agcaaaaaaa
 1200
 aaaaaaaaaa aaaaaaa
 1217

<210> 6250

<211> 245

<212> PRT

<213> Homo sapiens

<400> 6250

Met Gly Arg Leu Asp Gly Lys Val Ile Ile Leu Thr Ala Ala Ala Gln
 1 5 10 15
 Gly Ile Gly Gln Ala Ala Ala Leu Ala Phe Ala Arg Glu Gly Ala Lys
 20 25 30
 Val Ile Ala Thr Asp Ile Asn Glu Ser Lys Leu Gln Glu Leu Glu Lys
 35 40 45
 Tyr Pro Gly Ile Gln Thr Arg Val Leu Asp Val Thr Lys Lys Lys Gln
 50 55 60
 Ile Asp Gln Phe Ala Asn Glu Val Glu Arg Leu Asp Val Leu Phe Asn
 65 70 75 80
 Val Ala Gly Phe Val His His Gly Thr Val Leu Asp Cys Glu Glu Lys
 85 90 95
 Asp Trp Asp Phe Ser Met Asn Leu Asn Val Arg Ser Met Tyr Leu Met
 100 105 110
 Ile Lys Ala Phe Leu Pro Lys Met Leu Ala Gln Lys Ser Gly Asn Ile
 115 120 125
 Ile Asn Met Ser Ser Val Ala Ser Ser Val Lys Gly Val Val Asn Arg
 130 135 140
 Cys Val Tyr Ser Thr Thr Lys Ala Ala Val Ile Gly Leu Thr Lys Ser
 145 150 155 160
 Val Ala Ala Asp Phe Ile Gln Gln Gly Ile Arg Cys Asn Cys Val Cys

caggggtcccc caatccctac aattctcctg agtccctcac caccatggag gaccttgct
 1140
 aggggtctacc gggagagtca ccacatctat tatgaggcaa gggcactggg atatgttccc
 1200
 accatccctt aaacacaaga gtaggctagg ggagcgtgca ggcagccccc gctcacggcc
 1260
 aggcctgcag cccaacccat gggcccttc gcaactggag tccacgtgag ctcagtacca
 1320
 cggggaagga tagagaaggg aacagggttaa cgcgctgta cagcacctca gagaagccac
 1380
 tgagacggga gagaagagc cagggtctaga aagcctccc atcaccggca gcagagaggg
 1440
 actggtgggc tgaagggga cagggaactgg caggaggggc ttcctgcct gggggtgagg
 1500
 agggagctca cgtgtgggct gtggattcct tgctgtccag ccaggctggg ggcagggagt
 1560
 ggccatggac tgagccacct agagatggga gagaagttgg tatgggtaan a
 1611

<210> 6252

<211> 100

<212> PRT

<213> Homo sapiens

<400> 6252

Met Gly Gly Arg Pro Leu Gly Lys Gly Leu Cys Leu Ala Ser Gly Arg	
1 5 10 15	
Ala Lys Ser Ser Lys Gly Lys Gly Arg Gly His Ser Gly Glu Asn Ser	
20 25 30	
Ile Ser Gly Lys Thr Gly Ile His Phe Lys Ile Ser Ala Gln Lys Gly	
35 40 45	
Ser Arg Ala Val Leu Lys Pro Gly Arg Gln Gly Pro Pro Ile Pro Thr	
50 55 60	
Ile Leu Leu Ser Pro Ser Pro Pro Trp Arg Thr Leu Ala Arg Val Tyr	
65 70 75 80	
Arg Glu Ser His His Ile Tyr Tyr Glu Ala Arg Ala Leu Gly Tyr Val	
85 90 95	
Pro Thr Ile Pro	
100	

<210> 6253

<211> 1953

<212> DNA

<213> Homo sapiens

<400> 6253

nngtggggta cggggcaagg cgggcgcga gtttgcaaag gctcgacagc gccagaaacc
 60
 cggctccgag cggcggcggc cgggcttccg ctgcccgtga gctaaggacg gtccgctccc
 120
 tctagccagc tccgaatcct gatccaggcg ggggccaggg gccctcgcgc tccctctgta
 180
 ggaccgaaga tgagcttcct ctccagcagc cgctcttcta aaacattcaa accaagaaga
 240

aatatccctg aaggatctca tcagtatgaa ctcttaaaac atgcagaagc aactctagga
300
agtgggaatc tgagacaagc tgttatgttg cctgaggag aggatctcaa tgaatggatt
360
gctgtgaaca ctgtggattt ctttaaccag atcaacatgt tatatggaac tattacagaa
420
ttctgcactg aagcaagctg tccagtcagt tctgcaggtc cgagatatga atatcactgg
480
gcagatggta ctaatatata aaagccaatc aaatgttctg caccaaaaata cattgactat
540
ttgatgactt ggggtcaaga tcagcttgat gatgaaactc ttttctcttc taagattggg
600
gtcccatctc ccaaaaactt tatgtctgtg gcaaagacta ttctaaagcg tctgttcagg
660
gtttatgccc atattttca ccagcacttt gattctgtga tgcagctgca aggaggaggc
720
cacctcaaca cctcctttaa gcactttatt ttctttgttc aggagttaa tctgattgat
780
aggcgtgagc tggcacctct tcaagaatta atagagaaac ttggatcaaa agacagataa
840
atgtttcttc tagaacacag ttacccctt gcttcatcta ttgctagaac tatctcattg
900
ctatctgtta tagactagtg atacaaactt taagaaaaa ggataaaaaag ataccctatg
960
cctgtgtcta ctgataaaat tatcccaag gtaggttggg gtgatagttt ccgagtaaga
1020
ccttaaggac acagccaaat cttaagtact gtgtgaccac tctgttggtt atcacatagt
1080
catacttggt tgtaatatgt gatggttaac ctgtagctta taaatttact tatattctct
1140
ttactcattt actcagtcatt ttctttcaaa gaaaatgatt gaatctgttt taggtgacag
1200
cacaatggac attaagaatt tccatcaata atttatgaat aagtttccag aacaatttcc
1260
ctaataacac aatcagattg gttttattct tttattttac gaataaaaaa tgtatttttc
1320
agtacccttg agatttagaa catctgtgtc acttcagata acattttagt ttcaagtttg
1380
tatggtagtg tttttataga taagatacgt ctatttttcc aaaattcatg attgcagttt
1440
aaatcatcat atgacgtgtg ggtggggagca accaaagtta tttttacagg gactttattt
1500
tttgatcttt atttgagatt gttttcatat ctatctaaat tattaggagt gtgtgtatca
1560
gaagtaattt tttaatgtct tctaaggatg gtcttccagg cttttaaact gaaaagctta
1620
attcagatag tagcttttgg ctgagaaaaa gaatccaaaa tattaataaa tttgatctc
1680
aaaaccacta tttttattat ttcattattt ttcagaggcc ttaaaattct gggtaagaga
1740
atggaggaaa atactcagag tacttgatta ttttatttcc ttttattaaa aaattacttc
1800
tatgttttta ttgtctcttg agccttagtt aagagtagtg tagaaatgca tgaacttcat
1860

cctaataagg ataaaactta aggaaaacca caataaacca tgaagggtga cacatcttaa
 1920
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaa
 1953

<210> 6254
 <211> 216
 <212> PRT
 <213> Homo sapiens

<400> 6254
 Met Ser Phe Leu Phe Ser Ser Arg Ser Ser Lys Thr Phe Lys Pro Lys
 1 5 10 15
 Lys Asn Ile Pro Glu Gly Ser His Gln Tyr Glu Leu Leu Lys His Ala
 20 25 30
 Glu Ala Thr Leu Gly Ser Gly Asn Leu Arg Gln Ala Val Met Leu Pro
 35 40 45
 Glu Gly Glu Asp Leu Asn Glu Trp Ile Ala Val Asn Thr Val Asp Phe
 50 55 60
 Phe Asn Gln Ile Asn Met Leu Tyr Gly Thr Ile Thr Glu Phe Cys Thr
 65 70 75 80
 Glu Ala Ser Cys Pro Val Met Ser Ala Gly Pro Arg Tyr Glu Tyr His
 85 90 95
 Trp Ala Asp Gly Thr Asn Ile Lys Lys Pro Ile Lys Cys Ser Ala Pro
 100 105 110
 Lys Tyr Ile Asp Tyr Leu Met Thr Trp Val Gln Asp Gln Leu Asp Asp
 115 120 125
 Glu Thr Leu Phe Pro Ser Lys Ile Gly Val Pro Phe Pro Lys Asn Phe
 130 135 140
 Met Ser Val Ala Lys Thr Ile Leu Lys Arg Leu Phe Arg Val Tyr Ala
 145 150 155 160
 His Ile Tyr His Gln His Phe Asp Ser Val Met Gln Leu Gln Glu Glu
 165 170 175
 Ala His Leu Asn Thr Ser Phe Lys His Phe Ile Phe Phe Val Gln Glu
 180 185 190
 Phe Asn Leu Ile Asp Arg Arg Glu Leu Ala Pro Leu Gln Glu Leu Ile
 195 200 205
 Glu Lys Leu Gly Ser Lys Asp Arg
 210 215

<210> 6255
 <211> 622
 <212> DNA
 <213> Homo sapiens

<400> 6255
 nntccggagg ctgagacagg agaatcgctt gaaccaggga ggccgaggtt gcagtgagcc
 60
 gagatcatgc cattgcactc cagcctgggc aacagagtga gacttcatct caaaaaaaaa
 120
 aaagccacag tggctgcctt cacagccagc gagggccacg cacatcccag ggtagtggag
 180
 ctacccaaga cggatgaggg cctaggcttc aacatcatgg gtggcaaaga gcaaaactcg
 240

```

cccatctaca tctccgggt catcccagg ggtgtggctg accgccatgg aggcctcaag
300
cgtggggatc aactgttgct ggtgaacggt gtgagcgttg agggtagaca gcatgagaag
360
gcggtggagc tgctgaaggc ggcccagggc tcggtgaagc tggttgtccg ttacacaccg
420
cgagtgtctg aggagatgga ggcccgggtc gagaagatgc gctctgcccg ccggcgccaa
480
cagcatcaga gctactcgct cttggagtct cgagggttgaa accacagatc tggagcttca
540
cgtgcactct ctctctgtac agtattttatt gttctctggca ctttatttaa agatttttga
600
ccctcaaaaa aaaaaaaaaa aa
622

```

<210> 6256

<211> 150

<212> PRT

<213> Homo sapiens

<400> 6256

```

Met Pro Leu His Ser Ser Leu Gly Asn Arg Val Arg Leu His Leu Lys
1 5 10 15
Lys Lys Lys Ala Thr Val Ala Ala Phe Thr Ala Ser Glu Gly His Ala
20 25 30
His Pro Arg Val Val Glu Leu Pro Lys Thr Asp Glu Gly Leu Gly Phe
35 40 45
Asn Ile Met Gly Gly Lys Glu Gln Asn Ser Pro Ile Tyr Ile Ser Arg
50 55 60
Val Ile Pro Gly Gly Val Ala Asp Arg His Gly Gly Leu Lys Arg Gly
65 70 75 80
Asp Gln Leu Leu Ser Val Asn Gly Val Ser Val Glu Gly Glu Gln His
85 90 95
Glu Lys Ala Val Glu Leu Leu Lys Ala Ala Gln Gly Ser Val Lys Leu
100 105 110
Val Val Arg Tyr Thr Pro Arg Val Leu Glu Glu Met Glu Ala Arg Phe
115 120 125
Glu Lys Met Arg Ser Ala Arg Arg Arg Gln Gln His Gln Ser Tyr Ser
130 135 140
Ser Leu Glu Ser Arg Gly
145 150

```

<210> 6257

<211> 2216

<212> DNA

<213> Homo sapiens

<400> 6257

```

nttttttttt tttttttttt ttttttctgc agcaatcttt attcagttct tcttgggggt
60
gggatgcctc ccttcccatg ctcccacccc tcccatccca gaactccggt gggctcagtg
120
tcctctgttg agggaaggct ttggtgccca gatgcctact ctgcaggaga gggaggaacc
180

```

ttgtcccttt gcgggagtcg ctggtctctt ctgttgtggg gaagaaggaa ggtgggaggg
240
gcaactgtcca ccagcactca gagctccatt atgtcccccag ctgggggttg agggtagggg
300
ggaactggggg tgtcccccag cctcagcaga cggaggggcct cagggtatgag gctgccaggga
360
tagcgcacaga gaagcagctc agagcaaggg ctccctgagtg ggggcagggc tggggagaag
420
gtcatggggg ggctgcagta ggggtggtca ttgtgcaggc tgagttgaga gaagtgggtg
480
gccatgttct cctcagacag aaactgcttg cgcagaggct cctgctctc ctccaggcgc
540
cgcttggtgc tcatgggcac agctcctcgg agaggggagc tggcgctccag gccccaagtc
600
acccccaaag cgggcccgcg gaggcgctgg gccctccctt gggggcctcg ctgcaagggc
660
tgctgcagga tcattggggt ttggggctct gcgggtggga tctgggcgac aggggaggag
720
ttctgagggg cgtggccaag agaggatggg cgtggcttta ggccgggcaca gccgcagggt
780
tctgcgcggg cgcggaagac gggcggcgcg tggcgyaagg caggcttgct cctcggggcg
840
ggggagggta tccggcttaa gggggctgcg gtggacacca ctctttaatg tcgggggtct
900
tcgcggcgt caccctcgct cctagggttc gggacggtag gcaccagcca ccttcgcgcc
960
gaaggcggtg gggcgccacg gagaggaaac gctctaggca cgtaaggcct cgtgaggttg
1020
cgtcgcgcgc ggagcactct gggacttgta gttctggaga tggagcgagc tgtgcgcctc
1080
gcggtgcctc tgggtcagac agagtggttc caggccttgc agcggctcca tatgaccatc
1140
ttctcccaga gcgtctcacc atgtgggaag tttctggcgg ctggcaacaa ttacgggcag
1200
attgccatct tcagcttgtc ctctgctttg agctcagaag ccaaaggaga aagtaagaag
1260
ccggttggtg ctttccaagc ccatgatggg cccgtctata gcatggttct caccgatcga
1320
cattctgtta gtgctgggga tggggagggt aaggcctggc tttggcgga gatgtcaag
1380
aagggtgta aggagctgtg gcgtcgtcag cctccataca ggaccagcct ggaagtgcct
1440
gagatcaacg ctttgcctgt ggtcccaag gagaattccc tcatectgyc tggggggagac
1500
tgtcagttgc acactatgga ccttgaaact gggactttca cgagggtcct cggggggccac
1560
acagactaca tccactgcct ggcactgcgg gaaaggagcc cagaggtgct gtcaggtggc
1620
gaggatggag ctgttcgact ttgggacctg cgcacagcca aggaggtcca gacgatcgag
1680
tcataagca cgaggagtgc tcgaggcccc acaatggggc ctggattgga tgtttggact
1740
gattccgact ggaatggtctg tggagggggc ccagccctca ccctctggca cctccgatcc
1800

tccacaccca ccaccatctt ccccatccgg gcgccacaga agcacgtcac cttctaccag
 1860
 gacctgattc tgctagctgg ccagggcgcg tgcgtcaacc agtggcagct gagggggag
 1920
 ctgaaggccc aggtgcctgg ctctccccc gggctgctca gcctcagcct caaccaggag
 1980
 cctgcgcgcg ctgagtgcga ggtcctgaca gctgcaggca acagctgccg ggtggatgtc
 2040
 ttaccaacc tgggttaccg agccttctcc ctgtccttct gatctctgac gacaccccca
 2100
 gccagctcag ggttttagag tgtttttcat tttctttttt tttttttttt tacaataaag
 2160
 tttcaggctt tttaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaa
 2216

<210> 6258

<211> 340

<212> PRT

<213> Homo sapiens

<400> 6258

Met	Glu	Arg	Ala	Val	Pro	Leu	Ala	Val	Pro	Leu	Gly	Gln	Thr	Glu	Val
1			5						10					15	
Phe	Gln	Ala	Leu	Gln	Arg	Leu	His	Met	Thr	Ile	Phe	Ser	Gln	Ser	Val
		20						25					30		
Ser	Pro	Cys	Gly	Lys	Phe	Leu	Ala	Ala	Gly	Asn	Asn	Tyr	Gly	Gln	Ile
		35					40						45		
Ala	Ile	Phe	Ser	Leu	Ser	Ser	Ala	Leu	Ser	Ser	Glu	Ala	Lys	Glu	Glu
	50					55					60				
Ser	Lys	Lys	Pro	Val	Val	Thr	Phe	Gln	Ala	His	Asp	Gly	Pro	Val	Tyr
65				70					75					80	
Ser	Met	Val	Ser	Thr	Asp	Arg	His	Leu	Ser	Ala	Gly	Asp	Gly	Glu	
			85						90				95		
Val	Lys	Ala	Trp	Leu	Trp	Ala	Glu	Met	Leu	Lys	Lys	Gly	Cys	Lys	Glu
			100					105					110		
Leu	Trp	Arg	Arg	Gln	Pro	Pro	Tyr	Arg	Thr	Ser	Leu	Glu	Val	Pro	Glu
		115					120						125		
Ile	Asn	Ala	Leu	Leu	Leu	Val	Pro	Lys	Glu	Asn	Ser	Leu	Ile	Leu	Ala
	130					135						140			
Gly	Gly	Asp	Cys	Gln	Leu	His	Thr	Met	Asp	Leu	Glu	Thr	Gly	Thr	Phe
145				150						155				160	
Thr	Arg	Val	Leu	Arg	Gly	His	Thr	Asp	Tyr	Ile	His	Cys	Leu	Ala	Leu
			165						170				175		
Arg	Glu	Arg	Ser	Pro	Glu	Val	Leu	Ser	Gly	Gly	Glu	Asp	Gly	Ala	Val
			180						185				190		
Arg	Leu	Trp	Asp	Leu	Arg	Thr	Ala	Lys	Glu	Val	Gln	Thr	Ile	Glu	Ser
		195					200					205			
Ile	Ser	Thr	Arg	Ser	Ala	Arg	Gly	Pro	Thr	Met	Gly	Ala	Gly	Leu	Asp
	210					215					220				
Val	Trp	Thr	Asp	Ser	Asp	Trp	Met	Val	Cys	Gly	Gly	Gly	Pro	Ala	Leu
225					230					235				240	
Thr	Leu	Trp	His	Leu	Arg	Ser	Ser	Thr	Pro	Thr	Thr	Ile	Phe	Pro	Ile
			245						250					255	
Arg	Ala	Pro	Gln	Lys	His	Val	Thr	Phe	Tyr	Gln	Asp	Leu	Ile	Leu	Ser

```

                260                265                270
Ala Gly Gln Gly Arg Cys Val Asn Gln Trp Gln Leu Ser Gly Glu Leu
      275                280                285
Lys Ala Gln Val Pro Gly Ser Ser Pro Gly Leu Leu Ser Leu Ser Leu
      290                295                300
Asn Gln Gln Pro Ala Ala Pro Glu Cys Lys Val Leu Thr Ala Ala Gly
305                310                315                320
Asn Ser Cys Arg Val Asp Val Phe Thr Asn Leu Gly Tyr Arg Ala Phe
      325                330                335
Ser Leu Ser Phe
      340

```

<210> 6259

<211> 384

<212> DNA

<213> Homo sapiens

<400> 6259

```

ccatgcagcg atcccataga acacagctca gagtctgata acagtgtcct tgaaattcca
60
gatgctttcg atagaacaga gaacatgtta tctatgcaga aaaatgaaa gataaagtat
120
tctaggtttg ctgccacaaa cactagggta aaagcaaac agaagcctct cattagtaac
180
tcacatacag accacttaat gggttgtact aagagtgcag agcctggaac cgagacgtct
240
caggttaatt cttctctga tctgaaggca tctactcttg ttcacaaacc ccagtcagat
300
ttacaaatg atgtctcttc tccaaaattc aacctgtcat caagcatatc cagtgagaac
360
tcgttaataa aggggtggggc agca
384

```

<210> 6260

<211> 128

<212> PRT

<213> Homo sapiens

<400> 6260

```

Pro Cys Ser Asp Pro Ile Glu His Ser Ser Glu Ser Asp Asn Ser Val
1                5                10                15
Leu Glu Ile Pro Asp Ala Phe Asp Arg Thr Glu Asn Met Leu Ser Met
      20                25                30
Gln Lys Asn Glu Lys Ile Lys Tyr Ser Arg Phe Ala Ala Thr Asn Thr
      35                40                45
Arg Val Lys Ala Lys Gln Lys Pro Leu Ile Ser Asn Ser His Thr Asp
      50                55                60
His Leu Met Gly Cys Thr Lys Ser Ala Glu Pro Gly Thr Glu Thr Ser
      65                70                75                80
Gln Val Asn Ser Phe Ser Asp Leu Lys Ala Ser Thr Leu Val His Lys
      85                90                95
Pro Gln Ser Asp Phe Thr Asn Asp Ala Leu Ser Pro Lys Phe Asn Leu
      100               105               110
Ser Ser Ser Ile Ser Ser Glu Asn Ser Leu Ile Lys Gly Gly Ala Ala

```

115

120

125

<210> 6261
<211> 3619
<212> DNA
<213> Homo sapiens

<400> 6261
ntccttgag gctctgctc gggaaagccg ctcatctcg ctcccccttc cctttcccg
60
ctcaagctct tctctctct ttcctttctt tccgctctc tttttctgc tgcgcgtccg
120
ggtcggggcc attttccggg ccgggcgcac taagggtgcg gggcccgggg cccagtata
180
gaccgcgcgt cctgctatcc ttctcttccc cggcccatg tggctgcggg gccgggcgg
240
cgctgccac tatggcccg aaagtagtta gcaggaaagc gaaagcgccc gcctgcggg
300
gagctgggag cgacgctcat gggcccgag tttggctggg atcactcgct tcacaaaagg
360
aaaagacttc ctctgtgaa gagatcctta gtatactact tgaagaaccg ggaagtcagg
420
ctacagaatg aaaccagcta ctctcgagtg tgcgatggtt atgcagcaca gcaactctcc
480
agtctctga aggagagaga gtttcacctt gggacctta ataaagtgtt tgcatctcag
540
tgggtgaatc ataggcaagt ggtgtgtggc acaaaatgca acacgctatt tgcctgagat
600
gtccagacaa gccagatcac caagatcccc attctgaaag accgggagcc tggagggtg
660
acccagcagg gctgtggtat ccatgccatc gagctgaatc ctctctagaac actgctagcc
720
actggaggag acaaccccaa cagtcttgcc atctatcgac tacctacgct ggatcctgtg
780
tgtgtaggag atgatggaca caaggactgg atcttttcca tcgcatggat cagcgacact
840
atggcagtg ctggctcacg tgatggttct atgggactct gggagggtgac agatgatgtt
900
ttgacccaaa gtgatgcgag acacaatgtg tcacgggtcc ctgtgtatgc acacatcact
960
cacaaggcct taaaggacat ccccaaagaa gacacaaacc ctgacaactg caagggttcg
1020
gctctggcct tcaacaacaa gaacaaggaa ctgggagcag tgtctctgga tggctacttt
1080
catctctgga aggctgaaaa tacactatct aagctcctct ccaccaaact gccatttgc
1140
cgtgagaatg tgtgtctggt ttatggtagt gaatggtcag ttatgcagt gggctcccaa
1200
gtctatgtct ccttcttgga tccacggcag ccatcatata acgtcaagtc tgcctgttcc
1260
agggagcgag cgactggaat ccggtcagtg agtttctacg agcacatcat cactgtggga
1320
acagggcagg gctccctgct gttctatgac atccgagctc agagatttct ggaagagagg
1380

ctctcagctt gttatgggtc caagcccaga ctacgagggg agaactctgaa actaaccact
1440
ggcaaaaggct ggctgaatca tgatgaaacc tggaggaatt acttttcaga cattgacttc
1500
ttcccgaatg ctgtttacac ccactgtcac gactcgtctg gaacgaaact ctttgtggca
1560
ggagggtccc tcccttcagg gctccatgga aactatgctg ggctctggag ttaatgacaa
1620
ctccccaat gcagagattt acactaactt ccattctcag ttctctgtt tcttttgatt
1680
ttttttttcc taattgtgtg aggcctctgt gttttagtgg gaacacaaaa gtttgcttat
1740
agtttaggca cttaatagga agaagctctg tacagaaato tgaaagtgtt ttgtctttt
1800
gttttccctt ttggtaatca aaattttact atcttttatt atttctggct ttcaacca
1860
acattgttgc taatccctat ttttctttaa gtgacacaca ttctcctgtc tctggcttct
1920
tcaggtgaa atgacatagt ctttctcacc cttacttcac tcttgagagg tagggctcct
1980
ttataattac atggttgtct tcagacttct tgtgaaagt tgggagctgt gtgtgtctgt
2040
gtgtgtgtga gagagagatc ttgtctgcgt gtgtgtgtgt gatctctgtt gccgttaggt
2100
actgtgtgtc actgaaatta cctggagtga ggattacttg taattaaaa atttataaaa
2160
gaaacaactt tatcacaga gtccagcttt gggactagtc tgatctctgt tttttaagtc
2220
taacaacact gataatagga agtaaaaaa gaaagaaaa gaaattacca ctgggaaaaat
2280
cttttttagtt agattgtagg cttcctgggg cctcccatgc caggactgca aagtgatcca
2340
gccctacctg tcttcccacc tgtgtgtccc ccgtgtggga agttgtgtgt acttcccctt
2400
cccacctca catctgctta gccagtagcc acaccctaa aacatcagac tcaccatcca
2460
gggtgcagctc cagaggctac aaaaggcttc atgggacttg aatccccatc ctagcttctc
2520
tctctctccc ctcaagacct gatctgtgtt taaggggcct ggagctggga gtctcaagtc
2580
tgctaagatt cacatccata gcccccatgg ctttgaggag aatcctctct gccattcttc
2640
caatctcccc agtgggtttt gctattattt tctaaattgg gttaagtcta agaagggtgg
2700
ggtgagcagg ggggtttatct gtgtgtagt agtgcttcat gtgtggaata ttcattttct
2760
tactgcagtg ggaattgggg ttgaagccac cctcctact ctgttggtt agccctgaga
2820
tggtgacagg ctggcctgca gtcagcatca ttgtgcatgt gacagcatca atgtgattag
2880
taatttgtct gtctctccct tgaactgtct gtttagtctg aggtttttaa acttgacagg
2940
agctgactgt gatgtccact tgttccctga tttttacaca tcattgcaaa gataacagct
3000

gtccccaccc accagttcct ctaagcacat actctgcttt tctgtcaaca tccccatttg
 3060
 gggaaaggaa aagtcattatt tattctctgca cccagatttt ttaacttggt ctcccagttg
 3120
 tccccctctt ctctgggtgt aagaaggaaa attggaaaaa aaattatata tatattctcc
 3180
 tttaaatggt ggggggctac tggagaggag agacagcaag tccaccctaa cttgttacac
 3240
 agcacatacc acaggttctg gaattctcat ctctgaacct agagaaatag gtgctataaa
 3300
 cagggaatta agcaaaatgc tggatgctat agatctttta attgtcttaa ttttttttct
 3360
 attattaaac tacaggctgt agatttctta gtcttcacag aacttctatc attttaaac
 3420
 gacttgata tttaaaaaaa aaatcttcag taggatgttt tgtactattg ctagaccctc
 3480
 ttctgtaatg ggtaatgcgt ttgattgttt gagattttct gtttttaaaa atgtagcact
 3540
 tgactttttg ccaaggaaaa aaataaaaaa tattccagtg caaaaaaaaa aaaaaaaaaa
 3600
 aaaaaaaaaa aaaaaaaaaa
 3619

<210> 6262

<211> 431

<212> PRT

<213> Homo sapiens

<400> 6262

Met	Gly	Pro	Gln	Phe	Gly	Trp	Asp	His	Ser	Leu	His	Lys	Arg	Lys	Arg
1				5					10					15	
Leu	Pro	Pro	Val	Lys	Arg	Ser	Leu	Val	Tyr	Tyr	Leu	Lys	Asn	Arg	Glu
			20					25					30		
Val	Arg	Leu	Gln	Asn	Glu	Thr	Ser	Tyr	Ser	Arg	Val	Leu	His	Gly	Tyr
		35				40						45			
Ala	Ala	Gln	Gln	Leu	Pro	Ser	Leu	Leu	Lys	Glu	Arg	Glu	Phe	His	Leu
		50				55					60				
Gly	Thr	Leu	Asn	Lys	Val	Phe	Ala	Ser	Gln	Trp	Leu	Asn	His	Arg	Gln
			70						75				80		
Val	Val	Cys	Gly	Thr	Lys	Cys	Asn	Thr	Leu	Phe	Val	Val	Asp	Val	Gln
			85					90					95		
Thr	Ser	Gln	Ile	Thr	Lys	Ile	Pro	Ile	Leu	Lys	Asp	Arg	Glu	Pro	Gly
		100						105					110		
Gly	Val	Thr	Gln	Gln	Gly	Cys	Gly	Ile	His	Ala	Ile	Glu	Leu	Asn	Pro
		115				120						125			
Ser	Arg	Thr	Leu	Leu	Ala	Thr	Gly	Gly	Asp	Asn	Pro	Asn	Ser	Leu	Ala
		130				135					140				
Ile	Tyr	Arg	Leu	Pro	Thr	Leu	Asp	Pro	Val	Cys	Val	Gly	Asp	Asp	Gly
		145				150				155				160	
His	Lys	Asp	Trp	Ile	Phe	Ser	Ile	Ala	Trp	Ile	Ser	Asp	Thr	Met	Ala
			165					170					175		
Val	Ser	Gly	Ser	Arg	Asp	Gly	Ser	Met	Gly	Leu	Trp	Glu	Val	Thr	Asp
			180					185				190			
Asp	Val	Leu	Thr	Lys	Ser	Asp	Ala	Arg	His	Asn	Val	Ser	Arg	Val	Pro

195	200	205
Val Tyr Ala His Ile Thr	His Lys Ala Leu Lys Asp Ile Pro Lys Glu	
210	215	220
Asp Thr Asn Pro Asp Asn Cys Lys Val Arg Ala Leu Ala Phe Asn Asn		240
225	230	235
Lys Asn Lys Glu Leu Gly Ala Val Ser Leu Asp Gly Tyr Phe His Leu		255
245	250	255
Trp Lys Ala Glu Asn Thr Leu Ser Lys Leu Leu Ser Thr Lys Leu Pro		270
260	265	270
Tyr Cys Arg Glu Asn Val Cys Leu Ala Tyr Gly Ser Glu Trp Ser Val		285
275	280	285
Tyr Ala Val Gly Ser Gln Ala His Val Ser Phe Leu Asp Pro Arg Gln		300
290	295	300
Pro Ser Tyr Asn Val Lys Ser Val Cys Ser Arg Glu Arg Gly Ser Gly		320
305	310	315
Ile Arg Ser Val Ser Phe Tyr Glu His Ile Thr Val Gly Thr Gly		335
325	330	335
Gln Gly Ser Leu Leu Phe Tyr Asp Ile Arg Ala Gln Arg Phe Leu Glu		350
340	345	350
Glu Arg Leu Ser Ala Cys Tyr Gly Ser Lys Pro Arg Leu Ala Gly Glu		365
355	360	365
Asn Leu Lys Leu Thr Thr Gly Lys Gly Trp Leu Asn His Asp Glu Thr		380
370	375	380
Trp Arg Asn Tyr Phe Ser Asp Ile Asp Phe Phe Pro Asn Ala Val Tyr		400
385	390	395
Thr His Cys Tyr Asp Ser Ser Gly Thr Lys Leu Phe Val Ala Gly Gly		415
405	410	415
Pro Leu Pro Ser Gly Leu His Gly Asn Tyr Ala Gly Leu Trp Ser		430
420	425	430

<210> 6263

<211> 2508

<212> DNA

<213> Homo sapiens

<400> 6263

```

nnggcacgag gcaacctgcc ctcatcctgg cccgcgactg taagaccgga cccacatcca
60
gaccaatctt cctgtccggg ctgctgcgac gcgggtccgc cagggttcag gcggggcgcc
120
ggggcgccctg aaggttaccg agtgcattgag cgcctagcgc tteccgcgct gccccgcccc
180
ctggcccgcc gaccgcgccg ccggctcgcc cgccagcccc tcggcgcccc gcggcgccgg
240
cgcggttgcc ggacgaggtc gcaggaggtg ccgtctgcct cccaggtgcg cgcttcgctc
300
ccggagccgc ggaactcgcc ggccgccatg gcgtccaaca tggaccggga gatgatcctg
360
gcggattttc aggcattgac tggcattgaa aacattgacg aagctattac attgcttgaa
420
caaaataatt gggacttagt ggcagctatc aatggtgtaa taccacagga aaatggcatt
480
ctacaaagtg aatatggagg tgagaccata ccaggacctg catttaatcc agcaagtcac
540

```

ccagcttcag ctcctacttc ctctctctct tcagcgtttc gacctgtaat gccatccagg
600
cagattgttag aaaggcaacc tcggatgctg gacttcaggg ttgaatacag agacagaaaa
660
gttgatgtgg tacttgaaaga cacctgtact gttggagaga ttaacagat tctagaaaa
720
gaacttcaga tacctgtgtc caaaatgctg ttaaaaggct ggaagacggg agatgtggaa
780
gacgtacgg tctctaaatc tctacacttg ccaaaaaaca acagtcttta tgtccttaca
840
ccagatttgc caccaccttc atcatctagt catgctgggt cctgcagga gtcatataat
900
caaaacttca tgctgatcat caccaccga gaagtccagc gggagtacaa cctgaacttc
960
tcaggaagca gtactattca agaggtaaag agaaatgtgt atgaccttac aagtatcccc
1020
gttccacc aattatggga gggctggcca acttctgcta cagacgactc aatgtgtctt
1080
gctgaatcag ggctctctta tccctgccat cgacttacag tgggaagaag atcttcacct
1140
gcacagacc gggaaacagtc ggaagaacaa atcaccgatg ttcatatggt tagtgatagc
1200
gatggagatg actttgaaga tgctacagaa ttgggggtgg atgatggaga agtatattggc
1260
atggcgctcat ctgccttgag aaaaatctcca atgatttgtt ttttagtgcc agaaaacgca
1320
gaaaatgaag gagatgcctt attacaattt acagcagagt tttcttcaag atatggtgat
1380
tgccatcctg tattttttat tggctcatta gaagctgctt ttcaagaggc cttctatgtg
1440
aaagcccgag atagaaagct tcttgctatc tacctccacc atgatgaaag tgggttaacc
1500
aacgtgttct gctcacaaat gctttgtgct gaatccattg tttcttatct gagtcaaaat
1560
tttataacct gggcttggga tctgacaaag gactccaaca gagcaagatt tctcactatg
1620
tgcaatagac actttggcag tgttgtggca caaaccattc ggactcaaaa aacggatcag
1680
tttccgcttt tcttgattat tatgggaaag cgatcatcta atgaagtgtt gaatgtgata
1740
caagggaaca caacagtaga tgagttaatg atgagactca tggctgcaat ggagatcttc
1800
acagcccaac aacaggaaga tataaaggac gaggatgaac gtgaagccag agaaaatgtg
1860
aagagagagc aagatgaggc ctatgcctt tcacttgagg ctgacagagc aaagagggaa
1920
gtccacgaga gagagatggc agaacagttt cgtttgagc agattcgcaa agaacaagaa
1980
gaggaaagtg aggccatccg gctgtcctta gagcaagccc tgcctcctga gccaaaggaa
2040
gaaaatgctg agcctgtgag caaactgcgg atccggaccc ccagtggcga gttcttgtag
2100
cggcggttcc tggccagcaa caagctccag attgtctttg attttgtagc ttccaaagga
2160

tttccatggg atgagtacaa gttactgagc acctttccta ggagagacgt aactcaactg
 2220
 gacccaaata aatcattatt ggaggtaaag ttgttccctc aagaaacctt tttccttgaa
 2280
 gcaaaagagt aaacacggcc cagcgggtgga accagccatt ccttgacaag ccagcagcct
 2340
 gcgtcaggag aagggtctct cgccaaccca cccacacgct cgtctcactc aattcaatgt
 2400
 cacacttctg cctcttgcaa aattgctgga aaaagtaata ataaatatag ctacttaaga
 2460
 tttcccaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaa
 2508

<210> 6264

<211> 654

<212> PRT

<213> Homo sapiens

<400> 6264

Met	Ala	Ser	Asn	Met	Asp	Arg	Glu	Met	Ile	Leu	Ala	Asp	Phe	Gln	Ala
1			5				10						15		
Cys	Thr	Gly	Ile	Glu	Asn	Ile	Asp	Glu	Ala	Ile	Thr	Leu	Leu	Glu	Gln
		20					25					30			
Asn	Asn	Trp	Asp	Leu	Val	Ala	Ala	Ile	Asn	Gly	Val	Ile	Pro	Gln	Glu
		35				40					45				
Asn	Gly	Ile	Leu	Gln	Ser	Glu	Tyr	Gly	Gly	Glu	Thr	Ile	Pro	Gly	Pro
	50				55					60					
Ala	Phe	Asn	Pro	Ala	Ser	His	Pro	Ala	Ser	Ala	Pro	Thr	Ser	Ser	Ser
	65				70				75				80		
Ser	Ser	Ala	Phe	Arg	Pro	Val	Met	Pro	Ser	Arg	Gln	Ile	Val	Glu	Arg
			85					90					95		
Gln	Pro	Arg	Met	Leu	Asp	Phe	Arg	Val	Glu	Tyr	Arg	Asp	Arg	Asn	Val
		100					105					110			
Asp	Val	Val	Leu	Glu	Asp	Thr	Cys	Thr	Val	Gly	Glu	Ile	Lys	Gln	Ile
		115					120					125			
Leu	Glu	Asn	Glu	Leu	Gln	Ile	Pro	Val	Ser	Lys	Met	Leu	Leu	Lys	Gly
		130				135					140				
Trp	Lys	Thr	Gly	Asp	Val	Glu	Asp	Ser	Thr	Val	Leu	Lys	Ser	Leu	His
		145				150				155				160	
Leu	Pro	Lys	Asn	Asn	Ser	Leu	Tyr	Val	Leu	Thr	Pro	Asp	Leu	Pro	Pro
			165					170					175		
Pro	Ser	Ser	Ser	Ser	His	Ala	Gly	Ala	Leu	Gln	Glu	Ser	Leu	Asn	Gln
		180					185						190		
Asn	Phe	Met	Leu	Ile	Ile	Thr	His	Arg	Glu	Val	Gln	Arg	Glu	Tyr	Asn
		195					200					205			
Leu	Asn	Phe	Ser	Gly	Ser	Ser	Thr	Ile	Gln	Glu	Val	Lys	Arg	Asn	Val
		210				215					220				
Tyr	Asp	Leu	Thr	Ser	Ile	Pro	Val	Arg	His	Gln	Leu	Trp	Glu	Gly	Trp
		225				230				235				240	
Pro	Thr	Ser	Ala	Thr	Asp	Asp	Ser	Met	Cys	Leu	Ala	Glu	Ser	Gly	Leu
			245					250					255		
Ser	Tyr	Pro	Cys	His	Arg	Leu	Thr	Val	Gly	Arg	Arg	Ser	Ser	Pro	Ala
			260					265				270			
Gln	Thr	Arg	Glu	Gln	Ser	Glu	Glu	Gln	Ile	Thr	Asp	Val	His	Met	Val

```

      275              280              285
Ser Asp Ser Asp Gly Asp Asp Phe Glu Asp Ala Thr Glu Phe Gly Val
290              295              300
Asp Asp Gly Glu Val Phe Gly Met Ala Ser Ser Ala Leu Arg Lys Ser
305              310              315              320
Pro Met Ile Cys Phe Leu Val Pro Glu Asn Ala Glu Asn Glu Gly Asp
      325              330              335
Ala Leu Leu Gln Phe Thr Ala Glu Phe Ser Ser Arg Tyr Gly Asp Cys
      340              345              350
His Pro Val Phe Phe Ile Gly Ser Leu Glu Ala Ala Phe Gln Glu Ala
      355              360              365
Phe Tyr Val Lys Ala Arg Asp Arg Lys Leu Leu Ala Ile Tyr Leu His
      370              375              380
His Asp Glu Ser Val Leu Thr Asn Val Phe Cys Ser Gln Met Leu Cys
      385              390              395              400
Ala Glu Ser Ile Val Ser Tyr Leu Ser Gln Asn Phe Ile Thr Trp Ala
      405              410              415
Trp Asp Leu Thr Lys Asp Ser Asn Arg Ala Arg Phe Leu Thr Met Cys
      420              425              430
Asn Arg His Phe Gly Ser Val Val Ala Gln Thr Ile Arg Thr Gln Lys
      435              440              445
Thr Asp Gln Phe Pro Leu Phe Leu Ile Ile Met Gly Lys Arg Ser Ser
      450              455              460
Asn Glu Val Leu Asn Val Ile Gln Gly Asn Thr Thr Val Asp Glu Leu
      465              470              475              480
Met Met Arg Leu Met Ala Ala Met Glu Ile Phe Thr Ala Gln Gln Gln
      485              490              495
Glu Asp Ile Lys Asp Glu Asp Glu Arg Glu Ala Arg Glu Asn Val Lys
      500              505              510
Arg Glu Gln Asp Glu Ala Tyr Arg Leu Ser Leu Glu Ala Asp Arg Ala
      515              520              525
Lys Arg Glu Ala His Glu Arg Glu Met Ala Glu Gln Phe Arg Leu Glu
      530              535              540
Gln Ile Arg Lys Glu Gln Glu Glu Glu Arg Glu Ala Ile Arg Leu Ser
      545              550              555              560
Leu Glu Gln Ala Leu Pro Pro Glu Pro Lys Glu Glu Asn Ala Glu Pro
      565              570              575
Val Ser Lys Leu Arg Ile Arg Thr Pro Ser Gly Glu Phe Leu Glu Arg
      580              585              590
Arg Phe Leu Ala Ser Asn Lys Leu Gln Ile Val Phe Asp Phe Val Ala
      595              600              605
Ser Lys Gly Phe Pro Trp Asp Glu Tyr Lys Leu Leu Ser Thr Phe Pro
      610              615              620
Arg Arg Asp Val Thr Gln Leu Asp Pro Asn Lys Ser Leu Leu Glu Val
      625              630              635              640
Lys Leu Phe Pro Gln Glu Thr Leu Phe Leu Glu Ala Lys Glu
      645              650

```

<210> 6265

<211> 1344

<212> DNA

<213> Homo sapiens

<400> 6265

nnagcacttc cagcctctca ccgacccgga caacaaggtc ttaaccata tttactttg
 60
 aacacctctg gtagtggaac aattcttata gatctgtctc ctgatgataa agagtgttcag
 120
 tctgtggagg aagagatgca aagtacagtt cgagagcaca gagatggagg tcatgcagg
 180
 ggaatcttca acagatacaa tattctcaag attcagaagg ttgtatacaa gaaactatgg
 240
 gaaagataca ctccacggag aaaagaagtt tctgaagaaa accacaacca tgccaatgaa
 300
 cgaatgttat ttcattgggtc tctttttgtg aatgcaatta tccacaaagg ctttgatgaa
 360
 aggcattgct acatagggtg tatgtttgga gctggcattt attttgtgta aaactcttcc
 420
 aaaagcaatc aatatgtata tgggaattgga ggaggtagct gggtccagt tcacaaagac
 480
 agatcttgtt acatttgcca caggcagctg ctcttttgcc gggtaacctt gggaagtct
 540
 tctctgagtt tcatgtcaat gaaaatggca cattctctcc cagggtcatca ctgagtcact
 600
 ggtagggcca gtgtaaatgg cctagcatta gctgaatatg ttattttacag aggagaacag
 660
 gcttatcttg agtatattaat tacttaccag attatgaggc ctgaagggtat ggtcgatgga
 720
 taaatagtta ttttaagaaa ctaattccac tgaacctaaa atcatcaaaag cagcagtggc
 780
 ctctacgttt tactcctttg ctgaaaaaaa atcatcttgc ccacaggcct tgggcaaaa
 840
 gataaaaaat tgaacgaagt ttaacattct gacttgataa agctttaata atgtacagt
 900
 ttttctaaat atttctctgt ttttcagcac ttttaacagat gccattccag gttaaaactgg
 960
 gttgtctgta ctaaattata aacagagtta acttgaacct tttatatgtt atgcattgat
 1020
 tctaacaac tgtaatgccc tcaacagaac taattttact aatacaatac tgtgttcttt
 1080
 aaaaacacagc attttacatg aatacaattt catttgtaaa actgtaaata agagcttttg
 1140
 tactagccca gttatttatt acattgtctt gtaatatataa tctgttttag aactgcagcg
 1200
 gttttacaaa ttttttcata tgtattgttc atctatactt catcttcatc cgtcatgatt
 1260
 gagtgtatct tacatttgat tccagaggct atgttcagtt gttagtggg aaagattgag
 1320
 ttatcagatt taatttgccg atgg
 1344

<210> 6266

<211> 240

<212> PRT

<213> Homo sapiens

<400> 6266

Xaa Ala Leu Pro Ala Ser His Arg Pro Gly Gln Gln Gly Leu Asn Pro

```

      1           5           10           15
Tyr Leu Thr Leu Asn Thr Ser Gly Ser Gly Thr Ile Leu Ile Asp Leu
      20           25           30
Ser Pro Asp Asp Lys Glu Phe Gln Ser Val Glu Glu Met Gln Ser
      35           40           45
Thr Val Arg Glu His Arg Asp Gly Gly His Ala Gly Ile Phe Asn
      50           55           60
Arg Tyr Asn Ile Leu Lys Ile Gln Lys Val Cys Asn Lys Lys Leu Trp
      65           70           75           80
Glu Arg Tyr Thr His Arg Arg Lys Glu Val Ser Glu Glu Asn His Asn
      85           90           95
His Ala Asn Glu Arg Met Leu Phe His Gly Ser Pro Phe Val Asn Ala
      100          105          110
Ile Ile His Lys Gly Phe Asp Glu Arg His Ala Tyr Ile Gly Gly Met
      115          120          125
Phe Gly Ala Gly Ile Tyr Phe Ala Glu Asn Ser Ser Lys Ser Asn Gln
      130          135          140
Tyr Val Tyr Gly Ile Gly Gly Thr Gly Cys Pro Val His Lys Asp
      145          150          155          160
Arg Ser Cys Tyr Ile Cys His Arg Gln Leu Leu Phe Cys Arg Val Thr
      165          170          175
Leu Gly Lys Ser Phe Leu Gln Phe Ser Ala Met Lys Met Ala His Ser
      180          185          190
Pro Pro Gly His His Ser Val Thr Gly Arg Pro Ser Val Asn Gly Leu
      195          200          205
Ala Leu Ala Glu Tyr Val Ile Tyr Arg Gly Glu Gln Ala Tyr Pro Glu
      210          215          220
Tyr Leu Ile Thr Tyr Gln Ile Met Arg Pro Glu Gly Met Val Asp Gly
      225          230          235          240

```

<210> 6267

<211> 328

<212> DNA

<213> Homo sapiens

<400> 6267

```

gggcctctccg gttttctcag ccctgggtggg tgaggttggg gccagggcc tgggccaatc
60
gggagagggg agggctaagc agagtgggga tgcccggcag tgaccagacc tctctcccca
120
gatgagcctt tctgcagtt ccgaaggaac gtgttcttcc caaagcggcg ggagctccag
180
atccatgacg aggaggtcct gcggtctctc tatgaggagg ccaagggcaa cgtgctggct
240
gcacgggtacc cgtgcgacgt ggaggactgc gaggtctctg gcgccttggg gtgcgcgctg
300
cagcttgggc cctaccagcc cggccggc
328

```

<210> 6268

<211> 83

<212> PRT

<213> Homo sapiens

<400> 6268

Ala Glu Trp Gly Cys Pro Ala Val Thr Gln Pro Leu Ser Pro Asp Glu
 1 5 10 15
 Pro Phe Leu Gln Phe Arg Arg Asn Val Phe Phe Pro Lys Arg Arg Glu
 20 25 30
 Leu Gln Ile His Asp Glu Glu Val Leu Arg Leu Leu Tyr Glu Glu Ala
 35 40 45
 Lys Gly Asn Val Leu Ala Ala Arg Tyr Pro Cys Asp Val Glu Asp Cys
 50 55 60
 Glu Ala Leu Gly Ala Leu Val Cys Arg Val Gln Leu Gly Pro Tyr Gln
 65 70 75 80
 Pro Gly Arg

<210> 6269

<211> 923

<212> DNA

<213> Homo sapiens

<400> 6269

nggcggaaga tggcgacgcc cctcgggtgg tcgaaggcgg ggtcaggatc tgtgtgtctc
 60
 gcttttagatc aactgcggga cgtgattgag tctcaggagg aactaatcca ccagctgagg
 120
 aacgtgatgg ttctccagga cgaaaatttt gtcagtaaa aagagtcca ggagctggag
 180
 aagaagctgg tggaagagaa agctgcccac gccaaaacca aggtcctcct ggccaaggaa
 240
 gaggagaagt tacagtttgc cctcggagag gttagaggtc tatccaagca gctggagaaa
 300
 gagaagctgg cctttgaaaa agcgtctctcc agtgtcaaga gcaaagtcct tcaggagtcc
 360
 agcaagaagg accagctcat caccaagtgc aatgagattg agtctcacat tataaagcaa
 420
 gaagatatac ttaatggcaa agagaatgag attaaagagt tgcagcaagt tatcagccag
 480
 cagaaacata tcttcagccc accaccagcc ggctccgttg caggaatcac atgtctgact
 540
 tcgggatcca gaagcagcag gaaagctaca tggcccaggt gctggaccag aagcataaga
 600
 aagctctcagg gacacgtcag gccgcagacc accagcatcc cagggaaaaa taaaattggc
 660
 gcgcgtttcc tgttctctgg ctgtaatccc cagcctctgc cttctctgct ctgggagtcc
 720
 ccagcctcta gccctgcta ctctccctcc tcttggtatg tggtaggggt ccacaagggt
 780
 ggggcttgta gcttagggga ggagctgggt ctttgttgtc tggtaggcac caccgcttcc
 840
 ttgggttatt taatcccttc ctatataaac agcctgggtt acccagtaat attccaccce
 900
 actcccagtg tcttggtaaa ttt
 923

<210> 6270

<211> 307
 <212> PRT
 <213> Homo sapiens

<400> 6270
 Xaa Arg Lys Met Ala Thr Pro Leu Gly Trp Ser Lys Ala Gly Ser Gly
 1 5 10 15
 Ser Val Cys Leu Ala Leu Asp Gln Leu Arg Asp Val Ile Glu Ser Gln
 20 25 30
 Glu Glu Leu Ile His Gln Leu Arg Asn Val Met Val Leu Gln Asp Glu
 35 40 45
 Asn Phe Val Ser Lys Glu Glu Phe Gln Ala Val Glu Lys Lys Leu Val
 50 55 60
 Glu Glu Lys Ala Ala His Ala Lys Thr Lys Val Leu Leu Ala Lys Glu
 65 70 75 80
 Glu Glu Lys Leu Gln Phe Ala Leu Gly Glu Val Glu Val Leu Ser Lys
 85 90 95
 Gln Leu Glu Lys Glu Lys Leu Ala Phe Glu Lys Ala Leu Ser Ser Val
 100 105 110
 Lys Ser Lys Val Leu Gln Glu Ser Ser Lys Lys Asp Gln Leu Ile Thr
 115 120 125
 Lys Cys Asn Glu Ile Glu Ser His Ile Ile Lys Gln Glu Asp Ile Leu
 130 135 140
 Asn Gly Lys Glu Asn Glu Ile Lys Glu Leu Gln Gln Val Ile Ser Gln
 145 150 155 160
 Gln Lys Gln Ile Phe Ser Pro Pro Pro Ala Gly Ser Val Ala Gly Ile
 165 170 175
 Thr Cys Leu Thr Ser Gly Ser Arg Ser Ser Arg Lys Ala Thr Trp Pro
 180 185 190
 Arg Cys Trp Thr Arg Ser Ile Arg Lys Pro Gln Gly His Val Arg Pro
 195 200 205
 Ala Ala Thr Ser Ile Pro Gly Lys Asn Lys Met Ala Ala Ala Phe Leu
 210 215 220
 Phe Ser Gly Cys Asn Pro Gln Pro Leu Pro Ser Leu Leu Trp Glu Ser
 225 230 235 240
 Pro Ala Ser Ser Pro Cys Tyr Phe Pro Pro Ser Trp Ile Val Val Gly
 245 250 255
 Val His Lys Val Gly Ala Cys Ser Leu Gly Glu Glu Leu Gly Leu Cys
 260 265 270
 Cys Leu Val Gly Thr Thr Ala Ser Phe Gly Tyr Leu Ile Pro Ser Tyr
 275 280 285
 Ile Asn Ser Pro Gly Tyr Pro Val Ile Phe His Pro Thr Pro Ser Val
 290 295 300
 Leu Val Asn
 305

<210> 6271
 <211> 1437
 <212> DNA
 <213> Homo sapiens

<400> 6271
 nccatggcga cgggcggcca gcagaaggag aacacgctgc ttcacctctt cgccggcggg
 60

tgtggaggca cagttggtgc tattttcact tgtccactag aagtcattaa gacacgggtg
 120
 cagtccttcaa gattagctct cgggacagtc tactatcctc aggttcatct ggggaccatt
 180
 agtggagctg gaattggtgag accaacatcc gtgacacctg gactctttca ggttctgaag
 240
 gctgtatact ttgcatgtta ctccaaagcc aaagagcaat ttaatggcat ttctgtgcct
 300
 aacagcaata ttgtgcctct ttctcagct ggctctgcag cttttatcac aaattcctta
 360
 atgaatccta tatggatggt taaaaccoga atgcagctag aacagaaagt gaggggctct
 420
 aagcagatga atacactcca gtgtgctcgt tacgtttacc agaccgaagg cattcgtggc
 480
 ttctatagag gattaactgc ctgctatgct ggaatttccg aaactataat ctgcttgcct
 540
 atttatgaaa gtttaaagaa gtatctgaaa gaagctccat tagcctcttc tgcaaatggg
 600
 actgagaaaa attccacaag tttttttgga cttatggcag ctgctgctct ttctaagggc
 660
 tgtgcctcct gcattgctta tccacacgaa gtcataagga cgaggctccg ggaagagggc
 720
 accaagtaca agtcttttgt ccagacggcg cgctgtggtt tcogggaaga aggctacott
 780
 gccttttata gaggactggt tgcccagctt atccggcaga tcccaaatat tgccattgtg
 840
 ttgtctactt atgagttaat tgtgtacctg ttagaagacc gtactcagta acaggccgga
 900
 aaattgtgct ctagaagaat aaaactgaaa aactctagag aatttttttt cccattgat
 960
 gtttagaaaag tttagagactg aaacaggaaa ggccataaaa tatctggttc atatcacctg
 1020
 ttggacattt ccttttggat tcatgctttc tggaagggtt aaattcatta acgttaatag
 1080
 ttaattataa cttttttttt aacttaagag gattcagggt taagcaccaa ctaattataa
 1140
 tcatgctatt taatttaagt atacatttgg ctgtgtctct cttttatgct cactatacta
 1200
 tgaaggactt aagtaattca gataaacctg ccttagaact gcagagaaaa atgataaagt
 1260
 gagaatacaa cttgttttat aatctgactt taagatcttg cactgctaga cagggaagaa
 1320
 gtgtgcgatt ttggctgggc actgtggctc acgctgttaa tccagcact ttgggaggcc
 1380
 gaggtgggtg gatcacaagg tcaggagatc gagaccatcc tggctaacca cctgcag
 1437

<210> 6272

<211> 296

<212> PRT

<213> Homo sapiens

<400> 6272

Xaa Met Ala Thr Gly Gly Gln Gln Lys Glu Asn Thr Leu Leu His Leu

```

      1           5           10           15
Phe Ala Gly Gly Cys Gly Gly Thr Val Gly Ala Ile Phe Thr Cys Pro
      20           25           30
Leu Glu Val Ile Lys Thr Arg Leu Gln Ser Ser Arg Leu Ala Leu Arg
      35           40           45
Thr Val Tyr Tyr Pro Gln Val His Leu Gly Thr Ile Ser Gly Ala Gly
      50           55           60
Met Val Arg Pro Thr Ser Val Thr Pro Gly Leu Phe Gln Val Leu Lys
      65           70           75
Ala Val Tyr Phe Ala Cys Tyr Ser Lys Ala Lys Glu Gln Phe Asn Gly
      85           90           95
Ile Phe Val Pro Asn Ser Asn Ile Val His Leu Phe Ser Ala Gly Ser
      100          105          110
Ala Ala Phe Ile Thr Asn Ser Leu Met Asn Pro Ile Trp Met Val Lys
      115          120          125
Thr Arg Met Gln Leu Glu Gln Lys Val Arg Gly Ser Lys Gln Met Asn
      130          135          140
Thr Leu Gln Cys Ala Arg Tyr Val Tyr Gln Thr Glu Gly Ile Arg Gly
      145          150          155
Phe Tyr Arg Gly Leu Thr Ala Ser Tyr Ala Gly Ile Ser Glu Thr Ile
      160          165          170
Ile Cys Phe Ala Ile Tyr Glu Ser Leu Lys Lys Tyr Leu Lys Glu Ala
      175          180          185
Pro Leu Ala Ser Ser Ala Asn Gly Thr Glu Lys Asn Ser Thr Ser Phe
      190          195          200
Phe Gly Leu Met Ala Ala Ala Ala Leu Ser Lys Gly Cys Ala Ser Cys
      205          210          215
Ile Ala Tyr Pro His Glu Val Ile Arg Thr Arg Leu Arg Glu Glu Gly
      220          225          230
Thr Lys Tyr Lys Ser Phe Val Gln Thr Ala Arg Leu Val Phe Arg Glu
      235          240          245
Glu Gly Tyr Leu Ala Phe Tyr Arg Gly Leu Phe Ala Gln Leu Ile Arg
      250          255          260
Gln Ile Pro Asn Thr Ala Ile Val Leu Ser Thr Tyr Glu Leu Ile Val
      265          270          275
Tyr Leu Leu Glu Asp Arg Thr Gln
      280          285          290
      295

```

<210> 6273

<211> 2355

<212> DNA

<213> Homo sapiens

<400> 6273

```

ncgaggatca ttgcagaggc cctgactcga gtcactctaca acctgacaga gaagggggaca
60
ccccagacat gccggtgttc acagagcaga tgatccagca ggagcagctg gactcgggtga
120
tggaatggct caccaaccag ccgcggcgcg cagctgggtgg acaaggacag caccttcctc
180
agcagcgtgg agcaccacct gagccgctac ctgaaggacg tgaagcagca ccacgtcaag
240
gctgacaagc gggaccacaga gtttgtcttc tacgaccagg tgaagcaagt gatgaatgcg
300

```

tacagagtca agccggccgt ctttgacctg ctccctggctg ttggcattgc tgcctacctc
360
ggcatggcct acgtggctgt ccaggtgagc agtggccagg ctccagcactt cagcctcctc
420
tacaagaccg tccagaggct gctcgtgaag gccaaagacac agtgacacac ccacccccac
480
agccggagcc cccgcccctc cacagtccct ggggcccagc acgagtgaat ggacactgcc
540
ccgcgcggcg cgccctgca gggacagggg ccctctccct ccccgccggt ggttggaaaca
600
ctgaattaca gagctttttt ctgttgctct ccgagactgg ggggggattg tttctctttt
660
tccttgctct tgaacttcct tggaggagag cttgggagac gtcccggggc caggctacgg
720
acttgcggac gagcccccca gtccctggag ccggccggcc tgggtctggt gtaagcacac
780
atgcacgatt aaagaggaga cggcgggacc cctgcccga tcgcgcggcg cctccgcccc
840
cgccctcctg ccgcaagggg cctggactgc aggcctgacc tgctccctgc tccgtgtctg
900
tcctaggacg tccccctccg ctcccgatg gtggcgtgga catggtatt tatctctgct
960
ccttcttgcc tggaggaggg cagtgccagc cctgggggtc tgggatcca gccctcctgg
1020
agccttttgt tccccatgtg gtctcagtga cccgtcccc tgacagtggg ctccggggagc
1080
tgcatcacc agccttcccc ttctccgact gcagggtctg atgtcatcgt tgacagcctt
1140
tgcttcgtgg gggcctggca ggcctgnncc tccccgacc ccgacccact gcaaaccccc
1200
gttccccctg actcctcttc tcccagccca tccctccggc cctgtgctc ctgcggcccc
1260
agcccagctc ccagggccgt caccctgctt gccctggcca gtccctgccc ctgagtcctg
1320
agccagtgcc tgggtgttcc tgggctcgtt actggggccc caggcnatcc agggcttggc
1380
acggccaggt ggtcctccct ggggaactgg gtgcgggtgg agtactggga ggagagggt
1440
ggcccgggga ggccttgggt ctccctccct cgctcctcgc cctgggccc aagtctctca
1500
tcaatagaaa ggaatgttcc ggggtggggg cgtcaggtga gaacgtttgc tgggaaggag
1560
aggacttggg gcatggctct ggggcaccct tcctggaaat cagagaggaa ggtccgggcc
1620
ctcgggaagc cttggacaga accctccacc ccgcagacca ggcgtcgtgt gtgtgtggga
1680
gagaaggagg cccgtgttga gctcaggag accccggtgt gtccgttctt tagcaatata
1740
acctaccag tgctgcccga cgaggtcttg tggggaagg acttgagctg ggcaagctct
1800
ggcctggcac ccgcagccgt ctcccttccg tggccaggg aggtgttttg tgcctgaagg
1860
acctggggcg gcccatggga gcctgggggt ctgtccagat aggaccaggg ggtctcactt
1920

tggccaccag ttcttcggcc agcaccctctg cctccagaa cctgcagcct ggaggggtga
 1980
 ggggacaacc acccctcttt cctccaggtt ggcaggggac cctcttctcc cgtctgccct
 2040
 gcgggttgcc cgctcctcc agagacttgc ccaagggccc atcaccactg gcctctgggc
 2100
 acttgtctg agactctggg acccaggcag ctgccacctt gtcaccatga gagaatttgg
 2160
 ggagtgtctg catgctagcc agcaggctcc tgtctgggtg ccacggggcc agcattttgg
 2220
 agggagcttc cttccttctt tcttgagacg gtctgcagga tggatgcact gactgaccgt
 2280
 ctggggctca ggctggtgtg ggatgcagcc ggccgatgag aaaataaagc catattgaat
 2340
 gatcaaaaaa aaaaa
 2355

<210> 6274

<211> 70

<212> PRT

<213> Homo sapiens

<400> 6274

Asp	Pro	Glu	Phe	Val	Phe	Tyr	Asp	Gln	Leu	Lys	Gln	Val	Met	Asn	Ala
1			5					10					15		
Tyr	Arg	Val	Lys	Pro	Ala	Val	Phe	Asp	Leu	Leu	Ala	Val	Gly	Ile	
		20					25				30				
Ala	Ala	Tyr	Leu	Gly	Met	Ala	Tyr	Val	Ala	Val	Gln	Val	Ser	Ser	Ala
		35				40					45				
Gln	Ala	Gln	His	Phe	Ser	Leu	Leu	Tyr	Lys	Thr	Val	Gln	Arg	Leu	Leu
		50				55					60				
Val	Lys	Ala	Lys	Thr	Gln										
65					70										

<210> 6275

<211> 1534

<212> DNA

<213> Homo sapiens

<400> 6275

gggcggtagc gacaggccag agctcgggcc tgagcagcca gcgtccggca tgaaggtctg
 60
 gggctctggct gctgcctgct tcttgctcca gcaccatgga atgcctcgcc agttttaccct
 120
 gcctcctgcc ccgcgcgatg agacttcccc ggcggacgct gtgtgccctg gccttggaag
 180
 tgacctctgt gggctctccc gttgtgcctt gcggccgcgc agccaacctg attggaagga
 240
 gccagcgggc gcagctttgc gggcccgacc ggctccgcgt ggcagggtgaa gtgcaccggg
 300
 ttgaaacctc tgacgtctct caagccactt tagccagtgt agccccagta tttactgtga
 360
 caaaatttga caaacaggga aacgttactt cttttgaaag gaagaaaact gaattatacc
 420

aagagttagg tcttcaagcc agagatttga gatttcagca tgtaatgagt atcacagtca
 480
 gaaacaatag gattatcatg agaattggagt atttgaagc tgtgataact ccagagtgtc
 540
 tctctgattt agattatcgt aattttaaact tagagcaatg gctgttccgg gaactccctt
 600
 cacagttgtc tggagagggg caactcgtta catacccttt accttttgag tttagagcta
 660
 tagaagcact cctgcaatat tggatcatgt tgttatctag atcaacaccc tttaggggaa
 720
 acttagcatt ttgcagccac tgatccttga gaccttggat gcttltgggtg accccaaaca
 780
 ttcttctcta gacagaagca aactgcacat ttactacag aatggcaaaa gtctatcaga
 840
 gttagaaca gatattaaaa ttttcaaaga gtcaattttg gagatcttgg atgaggaaga
 900
 gttgtctaga gagctctgtg tatcaaaatg ggagtgaccc acaagtcttt gnaaaagagc
 960
 agtgctggga ttgaccatgc agaagaaaatg gagttgctgt tggaaaacta ctaccgattg
 1020
 gctgacgac tctccaatgc agctcgtgag cttaggggtgc tgattgatga ttcacaaagt
 1080
 attattttta ttaatctgga cagccaccga aacgtgatga ttagggtgaa tctacagctg
 1140
 accatgggaa ccttctctct ttgcctcttt ggactaatgg gagttgcttt tggaatgaat
 1200
 ttggaatctt cccttgaaga ggaccataga attttttggc tgattacagg aattatgttc
 1260
 atgggaagtg gcctcatctg gaggcgcctg ctttcattcc ttggacgaca gctagaagct
 1320
 ccattgcctc ctatgatggc ttctttacct aaaaagactc ttctggcaga tagaagcatg
 1380
 gaattgaaaa atagcctcag actggatgga cttggatcag gaaggagcat cctaacaac
 1440
 cgttaggaa agcccgctgg atactgaagt tttttttatg gtatgtacag gaaactcttg
 1500
 atactctttt tattattttc ttgtatagag tcag
 1534

<210> 6276

<211> 172

<212> PRT

<213> Homo sapiens

<400> 6276

Met Gly Val Thr His Lys Ser Leu Xaa Lys Ser Ser Ala Gly Ile Asp
 1 5 10 15
 His Ala Glu Glu Met Glu Leu Leu Leu Glu Asn Tyr Tyr Arg Leu Ala
 20 25 30
 Asp Asp Leu Ser Asn Ala Ala Arg Glu Leu Arg Val Leu Ile Asp Asp
 35 40 45
 Ser Gln Ser Ile Ile Phe Ile Asn Leu Asp Ser His Arg Asn Val Met
 50 55 60
 Ile Arg Leu Asn Leu Gln Leu Thr Met Gly Thr Phe Ser Leu Ser Leu

65		70		75		80
Phe	Gly	Leu	Met	Gly	Val	Ala
		85		90		95
Glu	Glu	Asp	His	Arg	Ile	Phe
		100		105		110
Gly	Ser	Gly	Leu	Ile	Trp	Arg
		115		120		125
Leu	Glu	Ala	Pro	Leu	Pro	Pro
		130		135		140
Leu	Leu	Ala	Asp	Arg	Ser	Met
		145		150		155
Gly	Leu	Gly	Ser	Gly	Arg	Ser
		165		170		

<210> 6277

<211> 1206

<212> DNA

<213> Homo sapiens

<400> 6277

gctagcatgg cgggtgatgga aggagacttg gtgaagaagg aaagctttgg tgtgaagctt
 60
 atggacttcc aggccaccgc gcggggtgyc actctaaata gaaagcacat atccccgcgt
 120
 ttccagcogc cacttccgcc cacagatggc agcaccgttg tgcccgtctg cccagagccc
 180
 cctccccaga gctctagggc tgaagcagc tctgggggtg ggactgtccc ctcttcgcgc
 240
 ggcatactgg agcagggggc gagcccgagg gacggcagtc ctcccaaacc gaaggaccct
 300
 gtatctgcag ctgtgccagc accangggag aaacaacagt cagatagcat ctggccaaaa
 360
 tcagcccccag gcagctgctg gctcccacca gctctccatg ggccacctca caatgctgca
 420
 gggcccagcc cgcatacact gcgcgagct gttaaaaaac ccgctccagc acccccga
 480
 ccgggcaacc cactctctgg ccccccgg ggccagagtt ctcaggaac atctcagcat
 540
 ccaccagtc tgtcaccaaa gccaccacc cgaagccctc ctctccacc cagcacacgg
 600
 gccagcctcc aggccagccc tccgccccct cccagctctc agcaccgccg aggtactcca
 660
 ncagcttgt ctccaatcca agctcccaat caccaccgc cgcagcccc taccagggcc
 720
 acgccaactga tgcacaccaa acccaatagc caggggccct ccaaccccat ggcatgccc
 780
 agtgagcatg gacttgagca gccatctcac acccctcccc agactccaac gccccccagt
 840
 actccgcccc taggaaaaa gaacccagct ctgccagctc ctccagacct ggcagggggt
 900
 aaccctgaaa ctgcacagcc acatgctgga accttacga gaccgagacc agtaccaaa
 960
 ccaagggaacc ggcccagcgt gccccaccc ccccaacctc ctggtgtcca ctccagctggg
 1020

gacagcagcc toaccaacac agcaccaaca gcttccaaga tagtaacaga ctccaattcc
 1080
 agggtttcag aacgcgatcg cagcatcttt cctgaaatgc actcagactc agccagcaaa
 1140
 gacgtgcctg gccgcacccct gctggatata gacaatgata ccgagagcac tgccctctgta
 1200
 agaaaag
 1206

<210> 6278

<211> 399

<212> PRT

<213> Homo sapiens

<400> 6278

Ala Ser Met Ala Val Met Glu Gly Asp Leu Val Lys Lys Glu Ser Phe
 1 5 10 15
 Gly Val Lys Leu Met Asp Phe Gln Ala His Arg Arg Gly Gly Thr Leu
 20 25 30
 Asn Arg Lys His Ile Ser Pro Ala Phe Gln Pro Pro Leu Pro Pro Thr
 35 40 45
 Asp Gly Ser Thr Val Val Pro Ala Gly Pro Glu Pro Pro Pro Gln Ser
 50 55 60
 Ser Arg Ala Glu Ser Ser Ser Gly Gly Gly Thr Val Pro Ser Ser Ala
 65 70 75 80
 Gly Ile Leu Glu Gln Gly Pro Ser Pro Gly Asp Gly Ser Pro Pro Lys
 85 90 95
 Pro Lys Asp Pro Val Ser Ala Ala Val Pro Ala Pro Xaa Glu Lys Gln
 100 105 110
 Gln Ser Asp Ser Ile Trp Pro Lys Ser Ala Pro Gly Ser Cys Trp Leu
 115 120 125
 Pro Pro Ala Leu His Gly Pro Pro His Asn Ala Ala Gly Pro Ser Pro
 130 135 140
 His Thr Leu Arg Arg Ala Val Lys Lys Pro Ala Pro Ala Pro Pro Lys
 145 150 155 160
 Pro Gly Asn Pro Pro Pro Gly His Pro Gly Gly Gln Ser Ser Ser Gly
 165 170 175
 Thr Ser Gln His Pro Pro Ser Leu Ser Pro Lys Pro Pro Thr Arg Ser
 180 185 190
 Pro Ser Pro Pro Ser Thr Arg Ala Ser Leu Gln Ala Ser Pro Pro
 195 200 205
 Pro Pro Pro Ser Ser Gln His Pro Gly Gly Thr Pro Xaa Ser Leu Ser
 210 215 220
 Pro Ile Gln Ala Pro Asn His Pro Pro Pro Gln Pro Pro Thr Gln Ala
 225 230 235 240
 Thr Pro Leu Met His Thr Lys Pro Asn Ser Gln Gly Pro Pro Asn Pro
 245 250 255
 Met Ala Leu Pro Ser Glu His Gly Leu Glu Gln Pro Ser His Thr Pro
 260 265 270
 Pro Gln Thr Pro Thr Pro Pro Ser Thr Pro Pro Leu Gly Lys Gln Asn
 275 280 285
 Pro Ser Leu Pro Ala Pro Gln Thr Leu Ala Gly Gly Asn Pro Glu Thr
 290 295 300
 Ala Gln Pro His Ala Gly Thr Leu Pro Arg Pro Arg Pro Val Pro Lys

```

305          310          315          320
Pro Arg Asn Arg Pro Ser Val Pro Pro Pro Pro Gln Pro Pro Gly Val
          325          330          335
His Ser Ala Gly Asp Ser Ser Leu Thr Asn Thr Ala Pro Thr Ala Ser
          340          345          350
Lys Ile Val Thr Asp Ser Asn Ser Arg Val Ser Glu Pro His Arg Ser
          355          360          365
Ile Phe Pro Glu Met His Ser Asp Ser Ala Ser Lys Asp Val Pro Gly
          370          375          380
Arg Ile Leu Leu Asp Ile Asp Asn Asp Thr Glu Ser Thr Ala Leu
385          390          395

```

<210> 6279

<211> 2795

<212> DNA

<213> Homo sapiens

<400> 6279

```

atggctgctg agaagcaggt cccaggcggc gccggcggcg gcggcggcag tggcggcggc
60
ggctggacgtg gtgccggagg ggaagaaaat aaagaaaacg aacgcccttc ggccggatcg
120
aaggcaaaaca aagaatttgg ggatagcctg agtttggaga ttcttcagat tattaaggaa
180
tcccagcagc agcatggttt acggcatgga gattttcaga ggtacagggg ctactgttcc
240
cgtagacaaa gacgtcttcg aaaaacactc aacttcaaga tgggtaacag acacaaattc
300
acaggggaaga aagtgaactg agagcttctg accgataata gatacttgct tctggttctg
360
atggatgctg aaagagcctg gagctacgcc atgcagctga aacaggaagc caaactgaa
420
ccccgaaaac ggtttcactt gttatctcgc ctacgcaaag ccgtgaagca tgcagaggaa
480
ttggaacgct tgtgtaagag caatcgctg gatgccaaga ccaaattaga ggctcaggct
540
tacacagctt acctctcagg aatgctactg tttgaacatc aagaatggaa agctgccatt
600
gaggctttta acaaatgcaa aactatctat gagaagctag ccagtgtctt cacagaggag
660
caggctgtgc tgtataacca acgtgtggaa gagatttcac ccaacatccg ctattgtgca
720
tataaatatt gggaccagtc agccatcaat gaactcatgc agatgagatt gaggtctggg
780
ggcactgaag gtctcttggc tgaaaaattg gaggctttga tcaactcagac tcgagccaaa
840
caggcagcta ccatgagtga agtggagtgg agagggagaa cggttccagt gaagattgac
900
aaagtgcgca ttttcttatt aggactggct gataacgaag cagctattgt ccaggctgaa
960
agccagaagaa ctaaggagcg cctgtttgaa tcaatgctca gcgagtgtcg ggagccatc
1020
caggtgtgtc gggaggagct caagccagat cagaacaga gagattatat ccttgaagga
1080

```

gagccaggga aggtgtctaa tcttcaatac ttgcatacct acctgactta catcaagcta
1140
tcaacggcaa tcaagcgtaa tgagaacatg gccaaaggtc tgcacagggc tctgtgtcag
1200
cagcagccag aggatgacag caagcgctca ccccgcccc aggacctgat ccgactctat
1260
gacatcatct tacagaatct ggtggaattg ctccagcttc ctggtttaga ggaagacaaa
1320
gccttcacaga aagagatagg cctcaagact ctggtgttca aagcttacag gtgttttttc
1380
attgctcagt cctatgtgct ggtgaagaag tggagcgaag cccttgctct gtatgacaga
1440
gtcctgaaat atgcaaatga agtaaatctt gatgctggcg cctcaagaa cagcctaaag
1500
gacctgcctg atgtgcaaga gctcatcact caagtgcggt cagagaagtg ctccctgcag
1560
gccgcagcca tctttgatgc aaacgacgct catcaaacag agacctctc ctcccaagtc
1620
aaggacaata agcctctggt tgaacggttt gagacattct gcctggacce ttccttctc
1680
accaagcaag ccaaccttgt gcacttccca ccaggcttcc agcccattcc ctgcaagcct
1740
ttgttctttg acctggccct caacctatgt gctttccac cccttgagga caagtggaa
1800
cagaagacca agagtggcct cactggatac atcaagggca tctttggatt caggagctaa
1860
ccaggctctt cctcgggggc gggggagatt ctgactctta atctgtattg tgagaaaatc
1920
ccagcaagtt ccatgatatt aaatccaggt ctgcattggc ccggggcaag agtttaacat
1980
cttcggccct gcattctac atcttgtgtc tgtacacgtt cttaagcagc gtgtcaggag
2040
agcacctgtg tgtcttctgg taaatgtgtg cagggtcacc ctgtctctg tactctctgg
2100
gaaaggggccc gctgctgtct ggtgccctgt gagctgtgat tgattgcctt tggtcagtaa
2160
tgcgttcagg agtccacacc aggcacagat ggggccttga aacgctttgt catgcttctt
2220
cagtaccatg gatttgaat gaactcatcc ttgctgtgag catccaggag cccttgagaa
2280
gtttatctat gactatgaaa ctggcaacgt caccocagaa ttacggctcag ccttattccc
2340
cttcacctcc cagtgaacgc taagaagttt cagacaagca gagagctcta tttttagaag
2400
aaatatgtta cactcagaaa tgatgaaacc aaatcttata ttaaaaggca aagatgacgg
2460
agactgtgcc catttcttat atgccctccc tcatgtccag tccccgttct ctctcggga
2520
gcctagtgtc gtgaagccgg tgaggctcaag tgtaacctga ctaccggca actaggtgag
2580
gctgatgccca gatacacatg ttagaggcac tatttttcag gacttcccaa tgtgtaattt
2640
ttagatgccca ttatatttta atccccttcg ttaccccccg tttttctta gtcatccctt
2700


```

          340          345          350
Gln Arg Asp Tyr Ile Leu Glu Gly Glu Pro Gly Lys Val Ser Asn Leu
          355          360          365
Gln Tyr Leu His Ser Tyr Leu Thr Tyr Ile Lys Leu Ser Thr Ala Ile
          370          375          380
Lys Arg Asn Glu Asn Met Ala Lys Gly Leu His Arg Ala Leu Leu Gln
          385          390          395          400
Gln Gln Pro Glu Asp Asp Ser Lys Arg Ser Pro Arg Pro Gln Asp Leu
          405          410          415
Ile Arg Leu Tyr Asp Ile Ile Leu Gln Asn Leu Val Glu Leu Leu Gln
          420          425          430
Leu Pro Gly Leu Glu Glu Asp Lys Ala Phe Gln Lys Glu Ile Gly Leu
          435          440          445
Lys Thr Leu Val Phe Lys Ala Tyr Arg Cys Phe Phe Ile Ala Gln Ser
          450          455          460
Tyr Val Leu Val Lys Lys Trp Ser Glu Ala Leu Val Leu Tyr Asp Arg
          465          470          475          480
Val Leu Lys Tyr Ala Asn Glu Val Asn Ser Asp Ala Gly Ala Phe Lys
          485          490          495
Asn Ser Leu Lys Asp Leu Pro Asp Val Gln Glu Leu Ile Thr Gln Val
          500          505          510
Arg Ser Glu Lys Cys Ser Leu Gln Ala Ala Ala Ile Leu Asp Ala Asn
          515          520          525
Asp Ala His Gln Thr Glu Thr Ser Ser Ser Gln Val Lys Asp Asn Lys
          530          535          540
Pro Leu Val Glu Arg Phe Glu Thr Phe Cys Leu Asp Pro Ser Leu Val
          545          550          555          560
Thr Lys Gln Ala Asn Leu Val His Phe Pro Pro Gly Phe Gln Pro Ile
          565          570          575
Pro Cys Lys Pro Leu Phe Phe Asp Leu Ala Leu Asn His Val Ala Phe
          580          585          590
Pro Pro Leu Glu Asp Lys Leu Glu Gln Lys Thr Lys Ser Gly Leu Thr
          595          600          605
Gly Tyr Ile Lys Gly Ile Phe Gly Phe Arg Ser
          610          615

```

<210> 6281

<211> 741

<212> DNA

<213> Homo sapiens

<400> 6281

```

nnctgggttg agagctgtcc ccggttctcc gttctgtctc cgggggcacc ttccgggggtt
60
cctaagccgc gggggccctc gctgccctc gaggccttt cctgacctta ggctttggcc
120
tgggctactc gttccggagc cgccatgtcg tccgaattcg aaggttacga gcaggacttc
180
gcggtgtctc ctgcagagat caccagcaag attgcgaggg tcccacgact cccgcctgat
240
gaaaagaaac agatggttgc aaatgtggag aaacagcttg aagaagcgaa agaactgctt
300
gaacagatgg atttggaagt ccgagagata ccaccccaaa gtcgagggat gtacagcaac
360

```

agaatgagaa gctacaaaca agaaatggga aaactcgaaa cagatttttaa aaggtcacgg
 420
 atcgcttaca gtgacgaagt acggaatgag ctctctggggg atgatgggaa ttcctcagag
 480
 aaccagaggg cacatctgct cgataacaca gagaggctgg aaagggtcatc tcggagagata
 540
 gaggctggat accaaatagc agtggaaacc ggtgagaatt ctgagagtga gcaaattgtc
 600
 ttgcttatgc acagcagttct tcacaacaca tgacatttca gggaaacttc aaaggagtag
 660
 cagagacagc agccccgagat gtggtttaca tatiggggag acaattggga gcttatctgc
 720
 gcttatcttt ttgcaagtta g
 741

<210> 6282

<211> 162

<212> PRT

<213> Homo sapiens

<400> 6282

Met	Ser	Ser	Asp	Phe	Glu	Gly	Tyr	Glu	Gln	Asp	Phe	Ala	Val	Leu	Thr
1				5				10					15		
Ala	Glu	Ile	Thr	Ser	Lys	Ile	Ala	Arg	Val	Pro	Arg	Leu	Pro	Pro	Asp
		20					25					30			
Glu	Lys	Lys	Gln	Met	Val	Ala	Asn	Val	Glu	Lys	Gln	Leu	Glu	Glu	Ala
		35				40					45				
Lys	Glu	Leu	Leu	Glu	Gln	Met	Asp	Leu	Glu	Val	Arg	Glu	Ile	Pro	Pro
		50				55					60				
Gln	Ser	Arg	Gly	Met	Tyr	Ser	Asn	Arg	Met	Arg	Ser	Tyr	Lys	Gln	Glu
65				70					75					80	
Met	Gly	Lys	Leu	Glu	Thr	Asp	Phe	Lys	Arg	Ser	Arg	Ile	Ala	Tyr	Ser
			85						90				95		
Asp	Glu	Val	Arg	Asn	Glu	Leu	Leu	Gly	Asp	Asp	Gly	Asn	Ser	Ser	Glu
		100						105					110		
Asn	Gln	Arg	Ala	His	Leu	Leu	Asp	Asn	Thr	Glu	Arg	Leu	Glu	Arg	Ser
		115					120					125			
Ser	Arg	Arg	Leu	Glu	Ala	Gly	Tyr	Gln	Ile	Ala	Val	Glu	Glu	Thr	Gly
		130				135					140				
Asn	Ser	Glu	Ser	Glu	Gln	Ile	Val	Leu	Leu	Met	His	Ser	Ser	Leu	His
145				150						155					160
Asn	Thr														

<210> 6283

<211> 2312

<212> DNA

<213> Homo sapiens

<400> 6283

nnattcttga agtggtttcc atattctgat ctcaggcctg tgcgagtga gagttttatg
 60
 agcaaggact ggaaggaacc agagacaaac aagtggttg ggtttgctgg gagggtggatg
 120

gtagctaagc atgtcattta ctgttcttgt tgettgggta ataggccaca atgaggaagc
180
tagcacggta gtgggcaatg ccagggtggga aggtttgagt tgtgaaagaa gagccagggga
240
gcagagatgg ggaggaggca ctgatggggt gggatgtgct ttggtcacac atagcacagt
300
cgggtgtgtc ctcccttttg tccacagtgg ttccctgggt ttgctgtctt cctcctgccc
360
tgggcgtcca tgtggctgog cagcctocta aaacctatcc acgtcttttt tggagccgcc
420
atccctctctc tgtccatcgc atccgtcatt tcgggcatta atgagaagct tttcttcagt
480
tgaaaaaaca ccaccaggcc ataccacagc ctgccacagt aggcggtctt tgccaacagc
540
accgggatgc tgggtggggc ctttgggctg ctgggtgctct acatccttct ggettcactc
600
tggaagcgcc cagagccggg gatcctgacc gacagacagc cctctgtcga tgatggggag
660
tgaaagcagca ggaaggggct cccaagagct cctgggtggg cagcctgtgc tcccctcaga
720
agctctgtctc tcccagggc tcccggctgg ttccagcagg cgaactttct ccaatgtcgg
780
gcccagactt cttgcctggg tgcctggcctg ccctctccgg ccgcttgcct cctgtctgct
840
ttccttgggt gctttgcctg ggtgctgggc ctgccctctc cggccgcttg ctgcctgtct
900
gctttccttg gtggtcttgc ctgggtgctg ggcctgcctt ctctggctgc ttgctgtcctg
960
tctgttttcc ttggtggctt tggcttctgc actccttggc gtcagcctct cagggtcctcc
1020
attcacacga ggtccctctc gctctggcgg ctcttctgc tectgtctga agaaatcaga
1080
ctgatttctt ctttaagactc ctagggatgt ggtgaagagc tgggactcaa gtgcagtcca
1140
cgggttgaaa catgagggag gtgagggtgc cgtccacttc ccccataaag gtgtgcattt
1200
cagtttaggt gcccccac agagcaggct tcactctgct tgcattccag cccactctgg
1260
atgtgagggt ggggtggagac atcatggggt gattgcagaa agggggagtg gcggcccacg
1320
cagcttctgc tggaggagctg accgctctga gctgttctgt ttcgtattgc tgcctgtgtg
1380
ctgcagtgtat tgtgaccgtg cggctccacc tcttccagct gctgctacag ctgaggcctg
1440
gatcccgcc tttccctgtg acttacgtgt ctgtccagg caggcagccc tacaaatcct
1500
ggtgacctgc tctcccaaga acagagcctg tcccagatg tcccagtagc gatgagtaac
1560
agagggtggc tgggacttcc tctacttctc cttgtggat cagggccttc ctgcctcccg
1620
ctgggacaggt ctggccttgc tctcttggca gggcccacgc cctctgacc actctgacg
1680
tcaccatgca gctgatgcca aagttgtggt gtccagtggt cagcagccct gggagccact
1740

gccaccttca gaggggttcc ttgctgagac ccacattgct tcacctggcc ccaccatggc
 1800
 tgcttgctcg gcccaaccta gogttctgtg ccatgetaga gcttgagctg ttgctcttct
 1860
 tcaggggagg aaatagggtg gagagcgga agggctctgc tcctaagtgt tgctgctgtg
 1920
 gcttttttgc cttctccaaa gacgcactgc cagggtcccaa gcttcagact gctgtgctta
 1980
 gtaagcaagt gagaagcctg gggtttgag cccacctact ctctggcagc atcagcatcc
 2040
 tactcctggc aacatcaggc caacgtccac cccagcctca cattggcaga tgttggcaga
 2100
 agggctaata ttgacctct tgactggctg gaggcttcaa agccactggg atgtcctcca
 2160
 ggcacctggg tcccatgacc agctccccgt ctccataggg gtaggcattt cactggttta
 2220
 tgaagctcga gtttcattaa atatgttaag aatcaaagct gtctttgttc agggctctat
 2280
 aacaaaaata taatagcctg ggtggcttaa ac
 2312

<210> 6284

<211> 122

<212> PRT

<213> Homo sapiens

<400> 6284

His Ser Arg Val Cys Pro Pro Phe Cys Pro Gln Trp Phe Leu Gly Phe
 1 5 10 15
 Ala Val Phe Leu Leu Pro Trp Ala Ser Met Trp Leu Arg Ser Leu Leu
 20 25 30
 Lys Pro Ile His Val Phe Phe Gly Ala Ala Ile Leu Ser Leu Ser Ile
 35 40 45
 Ala Ser Val Ile Ser Gly Ile Asn Glu Lys Leu Phe Phe Ser Leu Lys
 50 55 60
 Asn Thr Thr Arg Pro Tyr His Ser Leu Pro Ser Glu Ala Val Phe Ala
 65 70 75 80
 Asn Ser Thr Gly Met Leu Val Val Ala Phe Gly Leu Leu Val Leu Tyr
 85 90 95
 Ile Leu Leu Ala Ser Ser Trp Lys Arg Pro Glu Pro Gly Ile Leu Thr
 100 105 110
 Asp Arg Gln Pro Leu Leu His Asp Gly Glu
 115 120

<210> 6285

<211> 2542

<212> DNA

<213> Homo sapiens

<400> 6285

ntttttttt ttttttctgt ttatgacact ttattgatgc tgggggggtg gggaggagac
 60
 ctggagaaat atgtgggggc aagagtcccc aggtggggac agggaaagtg tgaagcctg
 120

gccactactg ggcaggggaag acagagttgc cactgtatgc acaggggatg agcagctgcc
180
ggtactccag gggcaggtgc cgtccacta gcacgtgcag tgagacttgg tcatgtacca
240
ggcctgtccg ccgcatacag agctccaggt cctctggctt cacagtcttg cggccagcat
300
gagcagcaaa tacctccaga tcatcacaaa gatgctggaa atatttatct aggcacttct
360
ccaccatctc aagagccttc ctctccatgg gcactctggc atagaagcta aagagtttca
420
catagtgtctc agtccagcct tgtggggatc ttgccggggc ctggggccgg tggctcgggg
480
ctagggggat gectgaacca cagaggctct gcaggctctg aagataagac tgcagcacca
540
ggcgctgggg ctggctcaag aaactgatga tgtgcctgg cctggagaga ctcaggggtg
600
ctggaggccg actctggact tgcctgacct ccagaggcat cctcatcccc tgaagatgct
660
cctggcccggt cagcctcagc agtccctctg gatecctctg cttctgtcac ctctgtgtgt
720
ccctcagcct cttctacctt gctgggtcct tgtgctcctg ttgctccat ttactcaca
780
ctcacacett cttcttccat cttttctctt gectcttcaa ctccatcgtg taagggtctt
840
acttcatctt ctccagagac accactgctg gtgctcagga agcccagagc aaaggcattg
900
acctcctctg cctctcctgc cagaaaactg gctgggttcc cagggcctga gtgaaggagg
960
gagaatacag ccgggagacg cagcaggcca aggctgcata gctcagagaa gggtaaaagt
1020
ggactctgct cttggatgaa ggaggcagcc acagccaggg tgccttaggg gcacagaggg
1080
gcttgaggaa ggaaaaactac cattgtcaac tctcacccaa gctaaatttg gctccaggcc
1140
accagtgcga cacactcact attcttctgc agcccaggcc cactgctctg tgtcttgcca
1200
ccggcagcct gctcagcgtc ttcagcccca gtgtgaggcg tgcagggcag ggaagtatac
1260
acgttggggg agccaacctt gggctgagag aacggctggg tgtctcccaa cacaatgttg
1320
gagggagcca gggaagtatc tcgcagatcc cgcacaaaagg caccacagtc tacagctcgg
1380
cgggctggag gtctcggggc caagccaggc ctctgcactg actgtggctg aagaggtgtg
1440
gcaaaagtca ggttgaggga tctggtgagg gaagaggcat cagcattccc ttgaggctct
1500
tgggagagag acagcccctg gtccactccc tgctgaaaca ctgacagtct cagcctctgt
1560
ttctctctgc caggggccag cagacctgga gccagggttg tggggggctc gagctcagga
1620
agttgcagct ccaggctgcc gcaactgctc tctgtctctg agggttggac cgcctcgggt
1680
gctggcactg gcttcaactac cgactcaggc atcaggatgg aagattcttg ggcagttagt
1740

aggatgttct tcagcagcgt ccgaggtgtc tgttctctcca agtgcccact ggcctgaata
 1800
 tggggccgate tgccaacaga cctggctcca tgggaacgcc ctctggetat cgtccttgtt
 1860
 tggccactca acttctctggg ggaagccgtt tcaagcaggc ctctccgggc tccagcccga
 1920
 gcactccggg gtgcgcgcgg ggtgcgcggg tccgctgtat ccagcacgcg tcgcagcagc
 1980
 gtgcgcggcg tggagtcgct gtcagggttg tggtcagcca tcgtctcggc cccgggcccct
 2040
 cctaaccgcc cagccagctg caggctccgc ctccccgcc ccacagttaa tgtaactctc
 2100
 gcgatgctcc cgcacagccc caccggaatt gtagtctcg cactatcgca gctcgcgggg
 2160
 tggacagtga tggttgcaaa ctccggatgc tttggaggca gcctcgtgc gggtaaacct
 2220
 cggttaatgt aatgcaagca gcccaagtct tggctctctc atcatattct gttagtgttt
 2280
 tcttccgtat ttttcaactg ttgacaatcc tctcacctta agttttcatg gcaactgaat
 2340
 tagaacttgg tttctgagtc ttccgtggag ttcagtttcc cagaatctat aattccatct
 2400
 attcgggaaa gtgaggcagg agcattgctt gatccttggg aggcagaggt tgcatatctg
 2460
 agatcgagcc acaatactcc atcttggcgg gttaagaggg ccccggtccc agcctatgcc
 2520
 ttcccacttc cctgttcaaa ta
 2542

<210> 6286

<211> 57

<212> PRT

<213> Homo sapiens

<400> 6286

Pro Gly Pro Ala Ala Ala Ser Ala Ala Pro Gly Pro Leu Ala Ser Gln	
1 5 10 15	
Ser Cys Gly Gln His Glu Gln Gln Ile Pro Pro Asp His His Lys Asp	
20 25 30	
Ala Gly Asn Ile Tyr Leu Gly Thr Ser Pro Pro Ser Gln Glu Pro Ser	
35 40 45	
Ser Pro Trp Ala Ser Trp His Arg Ser	
50 55	

<210> 6287

<211> 1674

<212> DNA

<213> Homo sapiens

<400> 6287

ntccgcatcc gcgcgcggcg ggagcgggag gaggaggcat cgtccccggg gctgggctgc
 60
 agcaagccgc acctggagaa gctgaccctg ggcacacgc gcacctaga atcttcccca
 120

gggtgactg aggtgacccat catagaaaag cctcctgctg aacgtcatat gatttcttcc
180
tgggaacaaa agaataactg tgtgatgcct gaagatgtga agaactttta cctgatgacc
240
aatggccttc acatgacatg gagtgtgaag ctggatgagc acatcattcc actgggaagc
300
atggcaatta acagcatctc aaaactgact cagctcacc agtcttccat gtattcactt
360
cctaatgcac ccactctggc agacctggag gacgatacac atgaagccag tgatgatcag
420
ccagagaagc ctcaactttga ctctcgagc gtgatatattg agctggattc atgcaatggc
480
agtgggaaag ttgtccttgt ctacaaaagt gggaaaccag cattagcaga agacactgag
540
atctgggttc tggacagagc gttatactgg cattttctca cagacacctt tactgcctat
600
taccgcctgc tcatcacca cctgggcctg cccagtgagg aatatgcctt caccagctat
660
ggcattagcc cacaggccaa gcaatgggtc agcatgtata aacctatcac ctacaacaca
720
aacctgctca cagaagagac cgactccttt gtgaataagc tagatccag caaagtgttt
780
aagagcaaga acaagatcgt aatcccaaaa aagaaagggc ctgtgcagcc tgcagggtggc
840
cagaaagggc cctcaggacc ctccgggtccc tccacttctt ccacttctaa atctcctct
900
ggctctggaa accccaccgc gaagtgcgca cccctccctc caactcccta ccagctccag
960
agtgggtggt tccatgcaca gatggcccta ggggtgacct ccagttttgc gtgtggaccg
1020
taggcctctt tctagttaa tgacaaaaat tgtaaggctt ttagtccac cgacattagc
1080
caggctcgta gtgaggcctc cagagcaggt tgtgctgtcc cctgcctctg gaagcaatgg
1140
ggaatttga atcttgtga agtgccaaa taagtctgag tgctttctc ttctcaaca
1200
ctcaaccctc aatcccttag cactgattga ttgagaggt ccccaaaaga aacctaggc
1260
tttgcccat gaagcattag aactgcattg ttcatcagg agccactagt cacatatgac
1320
tatttaaat taaagtaaat tgtatgaaa attcatttct tcaattgcat tagccacatt
1380
ttgaglatc atgtggctgg tagattctgt attagcaca agatattgaa catttccatc
1440
accacagaaa gttctgttgg acagcactgc attagaatat ttctatactg ctcttctca
1500
attaattttt gttgttaatg ttgatgtctt cattggatgg gtcataatgt tccatgaaac
1560
ctctcaagta cacaattgta tgttctttgt atcccttacc acaaatatct cgctctgctc
1620
atttcttttg cagcttccca taaagtttgt ctctctcatc aaaaaaaaaa aaaa
1674

<210> 6288

<211> 269

<212> PRT

<213> Homo sapiens

<400> 6288

```

Pro Gly Val Thr Glu Val Thr Ile Ile Glu Lys Pro Pro Ala Glu Arg
 1           5           10           15
His Met Ile Ser Ser Trp Glu Gln Lys Asn Asn Cys Val Met Pro Glu
 20           25           30
Asp Val Lys Asn Phe Tyr Leu Met Thr Asn Gly Phe His Met Thr Trp
 35           40           45
Ser Val Lys Leu Asp Glu His Ile Ile Pro Leu Gly Ser Met Ala Ile
 50           55           60
Asn Ser Ile Ser Lys Leu Thr Gln Leu Thr Gln Ser Ser Met Tyr Ser
 65           70           75
Leu Pro Asn Ala Pro Thr Leu Ala Asp Leu Glu Asp Asp Thr His Glu
 85           90           95
Ala Ser Asp Asp Gln Pro Glu Lys Pro His Phe Asp Ser Arg Ser Val
100          105          110
Ile Phe Glu Leu Asp Ser Cys Asn Gly Ser Gly Lys Val Cys Leu Val
115          120          125
Tyr Lys Ser Gly Lys Pro Ala Leu Ala Glu Asp Thr Glu Ile Trp Phe
130          135          140
Leu Asp Arg Ala Leu Tyr Trp His Phe Leu Thr Asp Thr Phe Thr Ala
145          150          155
Tyr Tyr Arg Leu Leu Ile Thr His Leu Gly Leu Pro Gln Trp Gln Tyr
165          170          175
Ala Phe Thr Ser Tyr Gly Ile Ser Pro Gln Ala Lys Gln Trp Phe Ser
180          185          190
Met Tyr Lys Pro Ile Thr Tyr Asn Thr Asn Leu Leu Thr Glu Glu Thr
195          200          205
Asp Ser Phe Val Asn Lys Leu Asp Pro Ser Lys Val Phe Lys Ser Lys
210          215          220
Asn Lys Ile Val Ile Pro Lys Lys Lys Gly Pro Val Gln Pro Ala Gly
225          230          235
Gly Gln Lys Gly Pro Ser Gly Pro Ser Gly Pro Ser Thr Ser Ser Thr
245          250          255
Ser Lys Ser Ser Ser Gly Ser Gly Asn Pro Thr Arg Lys
260          265

```

<210> 6289

<211> 1321

<212> DNA

<213> Homo sapiens

<400> 6289

```

acactgcgctc cggggccaga cgaacgatatc agcgcgggggt ccccaacaacg ccatgggggca
60
gagccaactc tcgagcgcgt gatcgaagcc cgagttttt tcgcccccg cacttccggg
120
tgcgacaatc tcttctgtcc ggccagccgc tggagtcgtt aggtgccgc tcgtctctga
180
cgagccacac gtttctcttc tcctgtgttt cccagctgga gggacatgag tgtccctggg
240

```

ccgtcgtctc cggacggggc cctgacacgg ccaccctact gcctggaggc cggggagcgg
 300
 acgcctggtt taagtgcacac ttctccagat gaaggggttaa tagaggactt gactatagaa
 360
 gacaaagcag tggagcaact ggcagaagga ttgctttctc attatttgcc agatctgcag
 420
 agatcaaaaac aagccctcca ggaactcaca cagaaccaag ttgtattggt agacacactg
 480
 gaacaagaga ttcaaaaatt taaagaatgt cattctatgt tggatattaa tgctttgttt
 540
 gctgaggcta aacactatca tgccaagttg gtgaatataa gaaaagagat gctgatgctt
 600
 catgaaaaaa catcaaagtt aaaaaaaga gcacttaaac tgcagcagaa gaggcaaaaa
 660
 gaagagtgtg aaagggagca gcaacgagag aaggggtttg aaagagaaaa cgagttaact
 720
 gccagaccag ccaaaaggat gtgaaaagtt gtgtttgtgt gttttcttct cctgtcccat
 780
 atttgggtta tgatgactca agtgtagact gaagttgagg tagtgcctta tgccattatg
 840
 tcatagtttg aaatccttat tccggtatta ctgtgtctcc atgccttttt tccaagtagc
 900
 agacgtcatg ttgcatggtt tttgatattt atatgtaagt ttttcaaatt ttgcttaatt
 960
 ttaaaattta ttattttgat ctggaattat ttataaactg gaaagtgggt tgattattgt
 1020
 gagtcaaaaac tctaagtgtt taaaaattag tatgaatttt ttagcttctt aatgaatatg
 1080
 gatttataaac tctccagttc ttattttatg aaatgacttg cctttctggt aatacaatgc
 1140
 tgatttttta gtaattgcct ttccattact ttgttaagaa gaaatgccag ctgtttaatc
 1200
 acacctacc cttgaaaaga ggtaaacctt ttgaacagtt gaatttcac agaagctcta
 1260
 tagctttttg gtgagaggaa gtgatactct ttattacaag aaacaaggaa ttaacaaaaa
 1320
 t
 1321

<210> 6290

<211> 172

<212> PRT

<213> Homo sapiens

<400> 6290

Met	Ser	Val	Pro	Gly	Pro	Ser	Ser	Pro	Asp	Gly	Ala	Leu	Thr	Arg	Pro
1				5				10						15	
Pro	Tyr	Cys	Leu	Glu	Ala	Gly	Glu	Pro	Thr	Pro	Gly	Leu	Ser	Asp	Thr
			20					25					30		
Ser	Pro	Asp	Glu	Gly	Leu	Ile	Glu	Asp	Leu	Thr	Ile	Glu	Asp	Lys	Ala
			35				40					45			
Val	Glu	Gln	Leu	Ala	Glu	Gly	Leu	Leu	Ser	His	Tyr	Leu	Pro	Asp	Leu
			50				55				60				
Gln	Arg	Ser	Lys	Gln	Ala	Leu	Gln	Glu	Leu	Thr	Gln	Asn	Gln	Val	Val

65		70		75		80									
Leu	Leu	Asp	Thr	Leu	Glu	Gln	Glu	Ile	Ser	Lys	Phe	Lys	Glu	Cys	His
				85					90					95	
Ser	Met	Leu	Asp	Ile	Asn	Ala	Leu	Phe	Ala	Glu	Ala	Lys	His	Tyr	His
			100					105					110		
Ala	Lys	Leu	Val	Asn	Ile	Arg	Lys	Glu	Met	Leu	Met	Leu	His	Glu	Lys
			115					120					125		
Thr	Ser	Lys	Leu	Lys	Lys	Arg	Ala	Leu	Lys	Leu	Gln	Gln	Lys	Arg	Gln
			130				135					140			
Lys	Glu	Glu	Leu	Glu	Arg	Glu	Gln	Gln	Arg	Glu	Lys	Gly	Phe	Glu	Arg
					150					155				160	
Glu	Lys	Gln	Leu	Thr	Ala	Arg	Pro	Ala	Lys	Arg	Met				
				165						170					

<210> 6291

<211> 2718

<212> DNA

<213> Homo sapiens

<400> 6291

naggtgtgtct tggcgggggg cgtggcacct gcactgttcc gggggatgcc agctcacttc
 60
 tcggacacgc ccagactga ggctgtgtac cacatgctga gccggcccca gccgccaccc
 120
 gacccccctc tgcctccagc tctgccacgg ccagctccc tgcagacaa gaccagctc
 180
 cacagcaggt ggctggactc gtgcgggtgt ctcatgcagc agggcatcaa ggctggggac
 240
 gcactctggc tgcgcttcaa gtactacagc ttcttcgatt tggatcccaa gacagacccc
 300
 gtgcggctga cacagctgta tgagcaggcc cggtgggacc tgcctgctgga ggagattgac
 360
 tgcaccgagg aggagatgat ggtgtttgcc gccctgcagt accacatcaa caagctgtcc
 420
 cagagcgggg aggtggggga gccggctggc acagacccag ggctggacga cctggatgtg
 480
 gccctgagca acctggaggt gaagctggag gggctggcgc ccacagatgt gctggacagc
 540
 ctccaccaca tccagagct caaggactat ctccgaatct tcggccccg gaagctgacc
 600
 ctgaagggtc accgccaaca ctgggtggtg ttcaaggaga ccactgtc ctactacaag
 660
 agccaggacg agggccctgg ggaccaccatt cagcagctca acctcaaggg ctgtgaggtg
 720
 gttcccgatg ttaactgtct cggccagaag ttctgcatta aactcctagt gccctcccct
 780
 gagggcatga gtgagatcta cctgcggtgc caggatgagc agcagtatgc ccgctggatg
 840
 gctgggtgcc gctggcctc caaaggccgc accatggccc acagcagcta caccagcgag
 900
 gtgcaggcca tcttgccctt cctcagcctg cagcacgggc agtgggggcc caggcaacca
 960
 cccccacggc ctgatgcctc tgcgaggggc ctcaaccctc acggcctcgt tgccccccgt
 1020

tccagcgaa agttcaaggc caagcagctc accccacgga tccctggaagc ccaccagaat
1080
gtggcccagt tgtcgctggc agaggcccag ctgctgttca tccaggcctg gcagtccttg
1140
cccgacttcg gcatctccta tgtcatggte aggttcaagg gcagcaggaa agacgagatc
1200
ctgggcatcg ccaacaaccg actgatccgc atcgacttgg ccgtgggtga cgtgggtcaag
1260
acctggcggt tcagcaacat ggcagcagtg aatgtcaact gggacatccg gcaggtggcc
1320
atcgagtttg atgaacacat caatgtggcc ttcagctgtg tgtctgccag ctgccgaatt
1380
gtacacgagt atatcggggg ctacattttc ctgtcgagc gggagcgggc ccgtggggag
1440
gagctgggat aagacctott cctgcagctc accggggggc atgagccctt ctgaggggctg
1500
tctgattgcc cctgccctgc tcaccacctc gtcacagcca tccccaagcc cacaccaca
1560
ggggctcact gccccacacc cgctccaggc aggcaccag ctgggcatct cacctgtgtg
1620
cactgacttt gtgcaggcca aggacctggc agggccagac gctgtacat caccaggcc
1680
agggatgggg gtgggggtcc ctgagctcat gtgggtgccc ctttctctgt ctgagtggtg
1740
gaggctgata cccctgaact atctgcagtc cccagcaca caaggaagac cagatgtagc
1800
tacaggatga tgaacatgg tttcaaacga gttctttctt gttactttt aaaatttctt
1860
ttttataaat taatatatta ttgttggate ctctctcttt ctctggagct gtgcttgggg
1920
ctactctgac actctgtctc ttcattacca gccaaaggaaa ggggctttcg ggtaggggct
1980
agctgcaggc cctccttga gtaacttggg aggaggaagc catcagtatt ccctggagtc
2040
agaatcaccc cattggcaga gcggaagaag ggtattccat ctgccagagc caggggtcca
2100
tcgatgaaca cagctatttc acaatgggac cgcattgccac tgatgatacc ggggtctcca
2160
ggcagtcctg gggccagggt aatgtgcgtc ctccctggc aggcagagcc tttagtagg
2220
atggatggcc agtgcttcca gaatgtacca tggactagca tcggggggcag ggcctcggtg
2280
tctccagggg catcagctcc aacttaggta cctgcaggga atggccctgg ttggcccgga
2340
tgagaaggcc agtgctggga tccccagct gcaggggcaa ccgctgcttc ctattgtgtg
2400
ccaccacgcg ctgcacatct tcagcagaga agccgcggaa ctggggcaac tgcaggaggg
2460
tgccccaggg cacgaagcca tctgtgggca ggcagggtgc tcaggagcta acctgtctct
2520
ggactggggc aggggttaaca gggagccaca ggcaccgaa acaaagtctg gcttgggaga
2580
tcgcttgggc atcctctgtg ggaaccttag aaagtctccc ctttctgggc cgcagttttc
2640

aacttcacata aaaagaggat ctgcctcacg gaggggcagg gaggtgagtg cccagcatag
 2700
 cgctggcccg gactgcac
 2718

<210> 6292

<211> 497

<212> PRT

<213> Homo sapiens

<400> 6292

Xaa	Val	Val	Leu	Ala	Gly	Gly	Val	Ala	Pro	Ala	Leu	Phe	Arg	Gly	Met
1			5						10					15	
Pro	Ala	His	Phe	Ser	Asp	Ser	Ala	Gln	Thr	Glu	Ala	Cys	Tyr	His	Met
		20					25						30		
Leu	Ser	Arg	Pro	Gln	Pro	Pro	Pro	Asp	Pro	Leu	Leu	Leu	Gln	Arg	Leu
		35					40					45			
Pro	Arg	Pro	Ser	Ser	Leu	Ser	Asp	Lys	Thr	Gln	Leu	His	Ser	Arg	Trp
	50					55					60				
Leu	Asp	Ser	Ser	Arg	Cys	Leu	Met	Gln	Gln	Gly	Ile	Lys	Ala	Gly	Asp
65					70					75				80	
Ala	Leu	Trp	Leu	Arg	Phe	Lys	Tyr	Tyr	Ser	Phe	Phe	Asp	Leu	Asp	Pro
			85						90					95	
Lys	Thr	Asp	Pro	Val	Arg	Leu	Thr	Gln	Leu	Tyr	Glu	Gln	Ala	Arg	Trp
			100					105					110		
Asp	Leu	Leu	Leu	Glu	Glu	Ile	Asp	Cys	Thr	Glu	Glu	Glu	Met	Met	Val
		115					120					125			
Phe	Ala	Ala	Leu	Gln	Tyr	His	Ile	Asn	Lys	Leu	Ser	Gln	Ser	Gly	Glu
130						135					140				
Val	Gly	Glu	Pro	Ala	Gly	Thr	Asp	Pro	Gly	Leu	Asp	Asp	Leu	Asp	Val
145					150					155				160	
Ala	Leu	Ser	Asn	Leu	Glu	Val	Lys	Leu	Glu	Gly	Ser	Ala	Pro	Thr	Asp
			165						170					175	
Val	Leu	Asp	Ser	Leu	Thr	Thr	Ile	Pro	Glu	Leu	Lys	Asp	Tyr	Leu	Arg
		180						185						190	
Ile	Phe	Arg	Pro	Arg	Lys	Leu	Thr	Leu	Lys	Gly	Tyr	Arg	Gln	His	Trp
		195					200					205			
Val	Val	Phe	Lys	Glu	Thr	Thr	Leu	Ser	Tyr	Tyr	Lys	Ser	Gln	Asp	Glu
	210					215					220				
Ala	Pro	Gly	Asp	Pro	Ile	Gln	Gln	Leu	Asn	Leu	Lys	Gly	Cys	Glu	Val
225					230					235				240	
Val	Pro	Asp	Val	Asn	Val	Ser	Gly	Gln	Lys	Phe	Cys	Ile	Lys	Leu	Leu
			245						250					255	
Val	Pro	Ser	Pro	Glu	Gly	Met	Ser	Glu	Ile	Tyr	Leu	Arg	Cys	Gln	Asp
		260						265					270		
Glu	Gln	Gln	Tyr	Ala	Arg	Trp	Met	Ala	Gly	Cys	Arg	Leu	Ala	Ser	Lys
		275					280					285			
Gly	Arg	Thr	Met	Ala	Asp	Ser	Ser	Tyr	Thr	Ser	Glu	Val	Gln	Ala	Ile
	290					295					300				
Leu	Ala	Phe	Leu	Ser	Leu	Gln	His	Gly	Gln	Trp	Gly	Pro	Arg	Gln	Pro
305					310					315				320	
Pro	Pro	Arg	Pro	Asp	Ala	Ser	Ala	Glu	Gly	Leu	Asn	Pro	Tyr	Gly	Leu
			325						330					335	
Val	Ala	Pro	Arg	Phe	Gln	Arg	Lys	Phe	Lys	Ala	Lys	Gln	Leu	Thr	Pro


```

          340          345          350
Arg Ile Leu Glu Ala His Gln Asn Val Ala Gln Leu Ser Leu Ala Glu
          355          360          365
Ala Gln Leu Arg Phe Ile Gln Ala Trp Gln Ser Leu Pro Asp Phe Gly
          370          375          380
Ile Ser Tyr Val Met Val Arg Phe Lys Gly Ser Arg Lys Asp Glu Ile
385          390          395          400
Leu Gly Ile Ala Asn Asn Arg Leu Ile Arg Ile Asp Leu Ala Val Gly
          405          410          415
Asp Val Val Lys Thr Trp Arg Phe Ser Asn Met Arg Gln Trp Asn Val
          420          425          430
Asn Trp Asp Ile Arg Gln Val Ala Ile Glu Phe Asp Glu His Ile Asn
          435          440          445
Val Ala Phe Ser Cys Val Ser Ala Ser Cys Arg Ile Val His Glu Tyr
          450          455          460
Ile Gly Gly Tyr Ile Phe Leu Ser Thr Arg Glu Arg Ala Arg Gly Glu
465          470          475          480
Glu Leu Asp Glu Asp Leu Phe Leu Gln Leu Thr Gly Gly His Glu Ala
          485          490          495
Phe

```

<210> 6293

<211> 750

<212> DNA

<213> Homo sapiens

<400> 6293

```

nggccggggcg ccatggcacc gtggggcaag cggtcggtcg gcgtgcgcgg ggtctgctt
60
gacatctcgg gcgtgctgta cgacagcggc gcgtgcgcgg gcacggccat cccgggctcg
120
gtggaggcgg tggccagact gaagcgttcc cggtcgaagg tgaggttctg caccacagag
180
tcgcagaagt cccgggcaga gctggtgggg cagcttcaga ggctgggatt tgacatctct
240
gagcaggagg taaccgcccc ggcaccagct gctgcacca tcctgaagga gcgaggcctg
300
cgaccatacc tgctcatcca tgacggagtc cgttcagaat ttgatcagat cgacacatcc
360
aacccaaact gtgtggtaat tgcagacgca ggagaaagct tttcttatca aaacatgaat
420
aacgccttcc aggtgctcat ggagctggaa aaacctgtgc tcatatcact gggaaaaggg
480
cgttactaca aggagacctc tggcctgatg ctggacgttg gtcctcatat gaaggcgctt
540
gagtatgcct gtggcatcaa agccgaggtg gtggggaagc cttctcctga gtttttcaag
600
tctgcctcgc aagcgatagg agtgaagcc caccaggccg tcatgattgg gagcatatc
660
gtgggcgacg tcggcggtgc ccagcggtgt ggaatgagag cgctgcagggt gcgcaccggg
720
aagttcaggc ccagtgacga gcaccatccg
750

```

<210> 6294
 <211> 250
 <212> PRT
 <213> Homo sapiens

<400> 6294
 Xaa Pro Gly Ala Met Ala Pro Trp Gly Lys Arg Leu Ala Gly Val Arg
 1 5 10 15
 Gly Val Leu Leu Asp Ile Ser Gly Val Leu Tyr Asp Ser Gly Ala Cys
 20 25 30
 Gly Gly Thr Ala Ile Ala Gly Ser Val Glu Ala Val Ala Arg Leu Lys
 35 40 45
 Arg Ser Arg Leu Lys Val Arg Phe Cys Thr Asn Glu Ser Gln Lys Ser
 50 55 60
 Arg Ala Glu Leu Val Gly Gln Leu Gln Arg Leu Gly Phe Asp Ile Ser
 65 70 75 80
 Glu Gln Glu Val Thr Ala Pro Ala Pro Ala Ala Cys Gln Ile Leu Lys
 85 90 95
 Glu Arg Gly Leu Arg Pro Tyr Leu Leu Ile His Asp Gly Val Arg Ser
 100 105 110
 Glu Phe Asp Gln Ile Asp Thr Ser Asn Pro Asn Cys Val Val Ile Ala
 115 120 125
 Asp Ala Gly Glu Ser Phe Ser Tyr Gln Asn Met Asn Asn Ala Phe Gln
 130 135 140
 Val Leu Met Glu Leu Glu Lys Pro Val Leu Ile Ser Leu Gly Lys Gly
 145 150 155 160
 Arg Tyr Tyr Lys Glu Thr Ser Gly Leu Met Leu Asp Val Gly Pro Tyr
 165 170 175
 Met Lys Ala Leu Glu Tyr Ala Cys Gly Ile Lys Ala Glu Val Val Gly
 180 185 190
 Lys Pro Ser Pro Glu Phe Phe Lys Ser Ala Leu Gln Ala Ile Gly Val
 195 200 205
 Glu Ala His Gln Ala Val Met Ile Gly Asp Asp Ile Val Gly Asp Val
 210 215 220
 Gly Gly Ala Gln Arg Cys Gly Met Arg Ala Leu Gln Val Arg Thr Gly
 225 230 235 240
 Lys Phe Arg Pro Ser Asp Glu His His Pro
 245 250

<210> 6295
 <211> 2091
 <212> DNA
 <213> Homo sapiens

<400> 6295
 ggccgccccg ggcgggggtgg gaggcggagg cggggccggg gcgccgcggg cggggcgccc
 60
 ggggcggggc gagtcggag gactcctcgg actgcgcgga acatggcggt ctgggggttg
 120
 cgccgcgcgg cagccctccg gctgtggggc cgggtagttg aacgggtcga ggcggggga
 180
 ggcgtagggc cggttcaggc ctgcggctgt cggctggtgc ttggcggcag ggaacgatgtg
 240

agtcgggggc tgagaggcag ccattggggc cgcggtgagc ccttggaccc ggcgccccc
300
ttgcagaggc ctcccagacc cgaggtgccc agggcattcc ggaggcagcc gaggggcagca
360
gtccccagtt tcttcttttc gagtattaaa ggtggaagaa ggtccatata tttttctgtg
420
gggtgcttcaa gtgtgtgttg aagtggaggc agcagtgaca aggggaagct ttccctgcag
480
gatgtagctg agctgattcg ggcagagacc tgccagaggg tgggtggtcat ggtggggggc
540
ggcatcagca caccagtggt cattccagac ttccagatcg cggggagtggt cctgtacagc
600
aacctccagc agtacgatct cccttaccac gaggccattt ttgaactccc attctctttt
660
cacaacccca agcccttttt cactttggcc aaggagctgt accttggaac ctacaagccc
720
aacgtcactc actactttct ccgggtgctt catgacaagg ggtgctttct gcggctctac
780
acgcagaaca tcgatgggct tgagagagtg tcgggcatcc tgcctcaca gctggttgaa
840
gtccatggaa cctttgcctc tgccacctgc acagtctgac aaagaccctt ccagggggag
900
gacattcggg ctgacgtgat ggcagacagg gttccccgtt gcccggtctg caccggcggt
960
gtgaagcccg acattgtgtt ctttggggag ccgctgcccc agagggtctt gctgcattgt
1020
gttgatttcc ccattggcaga tctgctgctc atccttggga cctccctgga ggtggagcct
1080
tttgccagct tgaccgagc cgtgcggagc tcagttcccc gactgctcat caaccgggac
1140
ttggtggggc ccttggtgtg gcatcctcgc agcagggaagc tggccagctt gggggacgtg
1200
gttcacggcg tggaaagcct agtggagctt ctgggctgga cagaagagat gcgggacctt
1260
gtgcagcggt aaactgggaa gcttgatgga ccagacaaat aggatgatgg cttgaccgag
1320
gccgtgcgga cgtcagttcc ccgactgctc atcaaccggg acttggtggg gcccttggtt
1380
tggcatcctc gcagcagggg cgtggccgac ctgggggagc tggttcacgg cgtggaagac
1440
ctagtggagc ttctgggctg gacagaagag atgcgggacc ttgtgcagcg ggaactggg
1500
aagcttgatg gaccagacaa ataggatgat ggctgcccc acacaataaa tggtaacata
1560
ggagacatcc acatcccaat tctgacaaga cctcatgctt gaagacagct tgggcaggtg
1620
aaaccagaat atgtgaactg agtggacacc cgaggctgcc actggaatgt cttctcaggc
1680
catgagctgc agtgactggt agggctgtgt ttacagtac ggccaccccg tcacatatac
1740
aaaggagctg cctgcctgtt tgctgtgttg aactcttcac tctgctgaag ctccaatagg
1800
aaaaagcttt cttctgactg tgacctctt gaactgaate agaccaactg gaatccagaa
1860

ccgagctctgc tttctgtgcc tagttgaacg gcaagctcgg catctgttgg ttacaagatc
 1920
 cagacttggg ccgagcggtc cccagccctc ttcattgttc gaagtgtagt cttgaggccc
 1980
 tgggtgcgcga cttctagcat gttggtctcc tttagtgggg ctatttttaa tgagagaaaa
 2040
 tctgttcttt ccagcatgaa atacatttag tctctctaaa aaaaaaaaaa a
 2091

<210> 6296

<211> 399

<212> PRT

<213> Homo sapiens

<400> 6296

Met	Ala	Phe	Trp	Gly	Trp	Arg	Ala	Ala	Ala	Ala	Leu	Arg	Leu	Trp	Gly
1			5					10					15		
Arg	Val	Val	Glu	Arg	Val	Glu	Ala	Gly	Gly	Gly	Val	Gly	Pro	Phe	Gln
		20						25					30		
Ala	Cys	Gly	Cys	Arg	Leu	Val	Leu	Gly	Gly	Arg	Asp	Asp	Val	Ser	Ala
		35				40					45				
Gly	Leu	Arg	Gly	Ser	His	Gly	Ala	Arg	Gly	Glu	Pro	Leu	Asp	Pro	Ala
	50					55					60				
Arg	Pro	Leu	Gln	Arg	Pro	Pro	Arg	Pro	Glu	Val	Pro	Arg	Ala	Phe	Arg
	55			70					75					80	
Arg	Gln	Pro	Arg	Ala	Ala	Ala	Pro	Ser	Phe	Phe	Phe	Ser	Ser	Ile	Lys
				85					90					95	
Gly	Gly	Arg	Arg	Ser	Ile	Ser	Phe	Ser	Val	Gly	Ala	Ser	Ser	Val	Val
		100						105					110		
Gly	Ser	Gly	Gly	Ser	Ser	Asp	Lys	Gly	Lys	Leu	Ser	Leu	Gln	Asp	Val
		115				120							125		
Ala	Glu	Leu	Ile	Arg	Ala	Arg	Ala	Cys	Gln	Arg	Val	Val	Val	Met	Val
	130				135					140					
Gly	Ala	Gly	Ile	Ser	Thr	Pro	Ser	Gly	Ile	Pro	Asp	Phe	Arg	Ser	Pro
	145				150					155				160	
Gly	Ser	Gly	Leu	Tyr	Ser	Asn	Leu	Gln	Gln	Tyr	Asp	Leu	Pro	Tyr	Pro
			165					170						175	
Glu	Ala	Ile	Phe	Glu	Leu	Pro	Phe	Phe	Phe	His	Asn	Pro	Lys	Pro	Phe
		180						185					190		
Phe	Thr	Leu	Ala	Lys	Glu	Leu	Tyr	Pro	Gly	Asn	Tyr	Lys	Pro	Asn	Val
		195				200						205			
Thr	His	Tyr	Phe	Leu	Arg	Leu	Leu	His	Asp	Lys	Gly	Leu	Leu	Leu	Arg
	210					215					220				
Leu	Tyr	Thr	Gln	Asn	Ile	Asp	Gly	Leu	Glu	Arg	Val	Ser	Gly	Ile	Pro
	225				230					235				240	
Ala	Ser	Lys	Leu	Val	Glu	Ala	His	Gly	Thr	Phe	Ala	Ser	Ala	Thr	Cys
			245					250						255	
Thr	Val	Cys	Gln	Arg	Pro	Phe	Pro	Gly	Glu	Asp	Ile	Arg	Ala	Asp	Val
		260						265					270		
Met	Ala	Asp	Arg	Val	Pro	Arg	Cys	Pro	Val	Cys	Thr	Gly	Val	Val	Lys
		275					280				285				
Pro	Asp	Ile	Val	Phe	Phe	Gly	Glu	Pro	Leu	Pro	Gln	Arg	Phe	Leu	Leu
	290					295					300				
His	Val	Val	Asp	Phe	Pro	Met	Ala	Asp	Leu	Leu	Leu	Ile	Leu	Gly	Thr

```

305          310          315          320
Ser Leu Glu Val Glu Pro Phe Ala Ser Leu Thr Glu Ala Val Arg Ser
          325          330          335
Ser Val Pro Arg Leu Leu Ile Asn Arg Asp Leu Val Gly Pro Leu Ala
          340          345          350
Trp His Pro Arg Ser Arg Asp Val Ala Gln Leu Gly Asp Val Val His
          355          360          365
Gly Val Glu Ser Leu Val Glu Leu Leu Gly Trp Thr Glu Glu Met Arg
          370          375          380
Asp Leu Val Gln Arg Glu Thr Gly Lys Leu Asp Gly Pro Asp Lys
385          390          395

```

<210> 6297

<211> 472

<212> DNA

<213> Homo sapiens

<400> 6297

```

nggggacgct ggccgagagc ctgaggcgcc gtcattgtcct ccgaggtgtc cgcgcgcgcg
60
gacgccaaga agctgggtgc ctcgccgagc ggccctgcgc tgggtgccga acaccgcgcg
120
ttcgggaagcc cgctcggcct ggaggagccg cagtgggtcc cggacaagga gtgtcggaga
180
tgtatgcagt gtgacgccaa gtttgacttt ctaccagaa agcaccactg tcgcgcgtgc
240
gggaagtgtc tctgcgacag gtgctgcagc cagaagggtc cgctgcggcg catgtgcttt
300
gtggaccgccg tgcggcagtg cgcggagtg gacctggtgt cccctcaagga ggcggagttc
360
tacgacaagc agctcaaagt gctcctgagc ggtaaggacg ggtgtcctgc acagtctctgc
420
gcgctccgcg agccggctcc tcgtgtctgt gccgatgctg tgggctgtgc ac
472

```

<210> 6298

<211> 146

<212> PRT

<213> Homo sapiens

<400> 6298

```

Met Ser Ser Glu Val Ser Ala Arg Arg Asp Ala Lys Lys Leu Val Arg
1          5          10          15
Ser Pro Ser Gly Leu Arg Met Val Pro Glu His Arg Ala Phe Gly Ser
20          25          30
Pro Phe Gly Leu Glu Glu Pro Gln Trp Val Pro Asp Lys Glu Cys Arg
35          40          45
Arg Cys Met Gln Cys Asp Ala Lys Phe Asp Phe Leu Thr Arg Lys His
50          55          60
His Cys Arg Arg Cys Gly Lys Cys Phe Cys Asp Arg Cys Cys Ser Gln
65          70          75          80
Lys Val Pro Leu Arg Arg Met Cys Phe Val Asp Pro Val Arg Gln Cys
85          90          95
Ala Glu Cys Ala Leu Val Ser Leu Lys Glu Ala Glu Phe Tyr Asp Lys

```

100 105 110
 Gln Leu Lys Val Leu Leu Ser Gly Lys Asp Gly Cys Pro Ala Gln Ser
 115 120 125
 Cys Ala Leu Arg Gln Pro Ala Pro Arg Val Cys Gly Asp Ala Val Gly
 130 135 140
 Cys Ala
 145
 <210> 6299
 <211> 1466
 <212> DNA
 <213> Homo sapiens
 <400> 6299
 ctgattccgg gctgtcatgg cgaccccca caatctgacc cccaccaact gcagctgggtg
 60
 gcccattctc gcgctggaga gcgatggcgc caagccagcg gaggccccc acgctcccga
 120
 ggcgccagc ccgcccattg gcccaggag agcctggttc tgtaccactg gaccagttcc
 180
 ttcatctcgc agaagggtgc gctgggtgat gccgagaagg gcctgggtgt cgaggagcgg
 240
 gacgtgagcc tgccacagag cgagcacaag gagcctcgtt tcatgcggct caacctgggc
 300
 gaggaggtgc ccgtcatcat ccacccgac aacatcatca gtgactatga ccagatcatt
 360
 gactatgtgg agcgcacctt cacaggagag cacytgggtg ccctgatgcc cgaggtgggc
 420
 agcctgcagc acgcacgggt gctgcagtac cyggagctgc tggacgcact gcccatggat
 480
 gcctacagc atggctgcat cctgcatccc gagctacca ccgactccat gatccccaag
 540
 tacgcccacg ccgagatccg cagacattta gccaatgcca ccacggacct catgaaactg
 600
 gaccatgaag aggagcccca gctctccgag ccctaccttt ctaaacaaaa gaagctcatg
 660
 gccaaagtct tggagcatga tyatgtgagc tacctgaaga agatcctcgg ggaactggcc
 720
 atggtgctgg accagattga ggcggagctg gagaagagga agctggagaa cgagggcgag
 780
 aaatgcgagc tctggtctct tggctgtgcc ttaccctcgt ctgatgtcct cctgggagcc
 840
 accctgcacc gcctcaagtt cctgggagct tccaagaat actgggaaga tggcagccgg
 900
 cccaacctgc agtctctctt tgagagggtc cagagacgct ttgccttcgg gaaagtctg
 960
 ggtgacatcc acaccacct gctgtcgccc gtcattccca atgctttcgg gctggtcaag
 1020
 aggaaacccc catctctctt cggggcgctc ttctcatgg gctccctggg tgggatgggc
 1080
 tactttgcct actggtacct caagaaaaaa tacatctagg gccaggccctg gggcttgggt
 1140
 tctgactgtc ggtgtctctg tgctgtgtga ttcccgtga gctctcagta actcactgtc
 1200

tcataaacac ttggacagcc ctccccgccc ttcgtttctga gtaataatac cgtcagtggtg
 1260
 aaaaacattcc gtatgtttaga agtagacgtt gcaaattgctg tgactcaagg ccacggctct
 1320
 gctaaaagag agagaaggaa cgagagagag agagaaaaaa caaaaaacca gaaaaccacg
 1380
 aatgcctttt tctatcgatt tcaaggtctc aagatgggaa ctgtgggaga ctggggttagg
 1440
 atctgagggg aactctttca caggga
 1466

<210> 6300

<211> 372

<212> PRT

<213> Homo sapiens

<400> 6300

Leu Ile Pro Gly Cys His Gly Asp Pro Gln Gln Ser Asp Pro His Gln
 1 5 10 15
 Leu Gln Leu Val Ala His Leu Arg Ala Gly Glu Arg Cys Gly Gln Ala
 20 25 30
 Ser Gly Gly Pro Arg Arg Ser Arg Gly Gly Gln Pro Ala His Trp Pro
 35 40 45
 Arg Glu Ser Leu Val Leu Tyr His Trp Thr Gln Ser Phe Ser Ser Gln
 50 55 60
 Lys Val Arg Leu Val Ile Ala Glu Lys Gly Leu Val Cys Glu Glu Arg
 65 70 75 80
 Asp Val Ser Leu Pro Gln Ser Glu His Lys Glu Pro Trp Phe Met Arg
 85 90 95
 Leu Asn Leu Gly Glu Glu Val Pro Val Ile Ile His Arg Asp Asn Ile
 100 105 110
 Ile Ser Asp Tyr Asp Gln Ile Ile Asp Tyr Val Glu Arg Thr Phe Thr
 115 120 125
 Gly Glu His Val Val Ala Leu Met Pro Glu Val Gly Ser Leu Gln His
 130 135 140
 Ala Arg Val Leu Gln Tyr Arg Glu Leu Leu Asp Ala Leu Pro Met Asp
 145 150 155 160
 Ala Tyr Thr His Gly Cys Ile Leu His Pro Glu Leu Thr Thr Asp Ser
 165 170 175
 Met Ile Pro Lys Tyr Ala Thr Ala Glu Ile Arg Arg His Leu Ala Asn
 180 185 190
 Ala Thr Thr Asp Leu Met Lys Leu Asp His Glu Glu Glu Pro Gln Leu
 195 200 205
 Ser Glu Pro Tyr Leu Ser Lys Gln Lys Lys Leu Met Ala Lys Ile Leu
 210 215 220
 Glu His Asp Asp Val Ser Tyr Leu Lys Lys Ile Leu Gly Glu Leu Ala
 225 230 235 240
 Met Val Leu Asp Gln Ile Glu Ala Glu Leu Glu Lys Arg Lys Leu Glu
 245 250 255
 Asn Glu Gly Gln Lys Cys Glu Leu Trp Leu Cys Gly Cys Ala Phe Thr
 260 265 270
 Leu Ala Asp Val Leu Leu Gly Ala Thr Leu His Arg Leu Lys Phe Leu
 275 280 285
 Gly Leu Ser Lys Lys Tyr Trp Glu Asp Gly Ser Arg Pro Asn Leu Gln

```

      290              295              300
Ser Phe Phe Glu Arg Val Gln Arg Arg Phe Ala Phe Arg Lys Val Leu
305              310              315              320
Gly Asp Ile His Thr Thr Leu Leu Ser Ala Val Ile Pro Asn Ala Phe
      325              330              335
Arg Leu Val Lys Arg Lys Pro Pro Ser Phe Phe Gly Ala Ser Phe Leu
      340              345              350
Met Gly Ser Leu Gly Gly Met Gly Tyr Phe Ala Tyr Trp Tyr Leu Lys
      355              360              365
Lys Lys Tyr Ile
      370

```

<210> 6301

<211> 911

<212> DNA

<213> Homo sapiens

<400> 6301

```

nnacggggttt tagaaaaaca agaattacag cagccaacct atgttgccct gagttacata
60
aatagattca tgacagatgc tgcccgccga gagcaggagt ccctaaagaa gaagatttcag
120
ccgaagctct cgctgactct gtccagctca gtgtctcgag ggaatgtgtc cactccccc
180
cgccacagca gtggaagcct tactcccccc gtgacccac ccatcacccc ctctctttca
240
ttccgcagca gcactccgac aggcagcgag tatgacgagg aggaggtgga ctatgaggag
300
tcggacagcg atgagtcctg gaccacagag agtgccatca gctccgaagc catcctcagc
360
tccatgtgca tgaatggagg ggaagagaag ccttttgcct gcccagttcc tggatgtaaa
420
aagagataca agaattgtgaa tggcataaag tatcacgcta agaatggtca cagaacacag
480
attcgtgtcc gcaaacatt caagtgtcgc tgtgggaaga gttacaagac agctcagggc
540
ctgcggcacc acacaatcaa ttccatccc ccggtgtcgg ctgagattat caggaagatg
600
gcgaataac atgctggtca taactgtgcc aagaaatcct caccagcagt tgctgatttt
660
gaaaacagcc accttttttc aggggaagca ttcagcaacc ctttaaagaa aaagaattaa
720
atgcatgctt taaatttttt ctgtaatttt ggaatgatgt atctttgtag agttaatgat
780
ttgtacatt tgcacatgta atcatcatac ccattttcat tactttgata taagggtgcta
840
aacaacaaaaa gctctagggt cttcagcaca tttcccccaa aacaaaataa aattgagggc
900
atgttgcaaa a
911

```

<210> 6302

<211> 202

<212> PRT

<213> Homo sapiens

<400> 6302

```

Xaa Arg Val Leu Glu Lys Gln Glu Leu Gln Gln Pro Thr Tyr Val Ala
 1           5           10           15
Leu Ser Tyr Ile Asn Arg Phe Met Thr Asp Ala Ala Arg Arg Glu Gln
 20           25           30
Glu Ser Leu Lys Lys Lys Ile Gln Pro Lys Leu Ser Leu Thr Leu Ser
 35           40           45
Ser Ser Val Ser Arg Gly Asn Val Ser Thr Pro Pro Arg His Ser Ser
 50           55           60
Gly Ser Leu Thr Pro Pro Val Thr Pro Pro Ile Thr Pro Ser Ser Ser
 65           70           75           80
Phe Arg Ser Ser Thr Pro Thr Gly Ser Glu Tyr Asp Glu Glu Glu Val
 85           90           95
Asp Tyr Glu Glu Ser Asp Ser Asp Glu Ser Trp Thr Thr Glu Ser Ala
100           105           110
Ile Ser Ser Glu Ala Ile Leu Ser Ser Met Cys Met Asn Gly Gly Glu
115           120           125
Glu Lys Pro Phe Ala Cys Pro Val Pro Gly Cys Lys Lys Arg Tyr Lys
130           135           140
Asn Val Asn Gly Ile Lys Tyr His Ala Lys Asn Gly His Arg Thr Gln
145           150           155           160
Ile Arg Val Arg Lys Pro Phe Lys Cys Arg Cys Gly Lys Ser Tyr Lys
165           170           175
Thr Ala Gln Gly Leu Arg His His Thr Ile Asn Phe His Pro Pro Val
180           185           190
Ser Ala Glu Ile Ile Arg Lys Met Gln Gln
195           200

```

<210> 6303

<211> 676

<212> DNA

<213> Homo sapiens

<400> 6303

```

aaagttcatg ttgttgatct aaaggcagaa tctgtagctg ctctataaac tggctcgtgct
60
tacttaaatc agacagttac agaattcaaa caactgattt caaaggccat ccatattacct
120
gctgaacaa tgagaatagt gctggaacgc tgctacaatg atttgcgtct tctcagtgtc
180
tccagtaaaa cccctgaaagc tgaaggattt tttagaagta acaagggtgt tggttgaaagc
240
tccgagactt tggattacca gatggccttt gcagactctc atttatggaa actcctggat
300
cggcatgcaa atacaatcag attatttgtt ttgctacctg aacaatcccc agtatcttat
360
tccaaaagga cagcatacca gaaagctgga ggcgattctg gtaatgtgga tgatgactgt
420
gaaagagtca aaggacctgt aggaagccta aagctctgtg aagctattct agaagaaagc
480
actgaaaaac tcaaaagctt gtcactgcag caacagcagg atggagataa tggggacagc
540

```

agcaaaagta ctgagacaag tgactttgaa aacatcgaa caccctctcaa tgagaggagc
 600
 tcttcagcat cagtgagataa tagagaaactt gaacagcata ttcagacttc tgatccagaa
 660
 aaatttttcag tctgaa
 676

<210> 6304
 <211> 181
 <212> PRT
 <213> Homo sapiens

<400> 6304
 Met Arg Ile Val Leu Glu Arg Cys Tyr Asn Asp Leu Arg Leu Leu Ser
 1 5 10 15
 Val Ser Ser Lys Thr Leu Lys Ala Glu Gly Phe Phe Arg Ser Asn Lys
 20 25 30
 Val Phe Val Glu Ser Ser Glu Thr Leu Asp Tyr Gln Met Ala Phe Ala
 35 40 45
 Asp Ser His Leu Trp Lys Leu Leu Asp Arg His Ala Asn Thr Ile Arg
 50 55 60
 Leu Phe Val Leu Leu Pro Glu Gln Ser Pro Val Ser Tyr Ser Lys Arg
 65 70 75 80
 Thr Ala Tyr Gln Lys Ala Gly Gly Asp Ser Gly Asn Val Asp Asp Asp
 85 90 95
 Cys Glu Arg Val Lys Gly Pro Val Gly Ser Leu Lys Ser Val Glu Ala
 100 105 110
 Ile Leu Glu Glu Ser Thr Glu Lys Leu Lys Ser Leu Ser Leu Gln Gln
 115 120 125
 Gln Gln Asp Gly Asp Asn Gly Asp Ser Ser Lys Ser Thr Glu Thr Ser
 130 135 140
 Asp Phe Glu Asn Ile Glu Ser Pro Leu Asn Glu Arg Asp Ser Ser Ala
 145 150 155 160
 Ser Val Asp Asn Arg Glu Leu Glu Gln His Ile Gln Thr Ser Asp Pro
 165 170 175
 Glu Lys Phe Ser Val
 180

<210> 6305
 <211> 3853
 <212> DNA
 <213> Homo sapiens

<400> 6305
 cagtgccagg ctggaggcgg cagcggttgg aggccttcgcc cggccttgcga gcggggactt
 60
 cggcggcggc gcctcaggca cctcggcccg gacacgatga ggcgagtggt ccggcagagc
 120
 aaattccggc atgtgttcgg gcagccggtc aagaacgacc agtgctatga ggaattccg
 180
 gtgtcccggt ttacctggga cagcaccttc tgcgccgtca accccaagtt cctggcgggt
 240
 attgtggagg ccagtgagg ggggtgcctt ctggtgctcc ccetaagcaa gacgggccc
 300

attgacaaagg cctaccctac agtatgtggg cacacaggac cagtgtctgga catcgactgg
360
tgccacata acgatcaggt cattgccagc ggttcagagg actgcacggt catgggtatgg
420
cagatccagg aaaatggact cacctccccc ctgacagagc cgggtggtggt actggagggg
480
cacaccaagc gagtgggcat catcgctctgg caccaccagc cccgaaacgt gctgctcagt
540
gcaggctcgc acaacgtggg actcatctgg aatgtgggca cagcggagga gctgtaccgc
600
ctggacagcc tgcacccctga cctcatctac aatgtcagct ggaaccacaa tggcagcctg
660
ttttgctcag catgcaagga caagagcgtg cgcctcatcg acccccgctg gggcaccctg
720
gtggcagagc gggagaaggc tcatgagggg gcccgccca tgcgggccat ctctctggca
780
gatggcaagg tgttcaccac aggccttcagc cgaatgagcg agcggcagct ggcgctctgg
840
aatccgaaaa atatgcagga accaattgct ctctcatgaga tggacactag caatgggggtg
900
ttgctgctt tctatgaccc tgacaccagc atcatttact tatgtggaaa gggtgacagc
960
agtattcgct attttgagat caggatgaa tccccgtacg tccactacct caacacattc
1020
agcagcaagg agcctcagag agggatgggt tacatgccca agaggggact tgatgttaac
1080
aaatgtgaga ttgccagatt ctccaactt catgagagaa agtgtgaacc tattattatg
1140
actgttccca ggaagtctga cettttccaa gatgacctgt atcctgacac agcggggcca
1200
gaggccgcgc tggaggcaga agagtgggtc gaaggcaaga atgcagacc aatcctcatc
1260
tccttgaagc acgggtacat tccaggcaaa aacagggatc tcaaggtggt caagaagaac
1320
attctggata gcaagccac tgcaacaag aagtgcgacc tgatcagcat cccaagaaa
1380
accacagaca cggccagtgt gcaaaatgaa gccagttgg atgagatttt aaaagagatc
1440
aaatctataa aagacacaat ctgcaatcaa gatgagcgtt ttccaagtt agaacagcag
1500
atggcaaaga tagcagcctg aaggtccac ccccccct acagaaaaaa tgggagcaag
1560
aacttgtgct tgggagctgg ttattggtgt ggtcctaggg agggcgga aaaggagcact
1620
gccatttggg gacattccat ttcagatttg tcaaccagcg ataggccaca ttccagtaag
1680
aactcaattt gtctccaaa ttgcagaaa caaaacgtga tttaaaagct gagcttttta
1740
tcagaaaagct tttttgatgt ttaagtgtt atgtgacttg ttgaactttt taaaagtgc
1800
tacttttaaa atccagata ctctgaattt tagaaaaaca actaattctg attgtgtcgt
1860
gcccaagtac cttttttttt ttaatgaata gggaccaatg ccacattgct ttttatattt
1920

cttctctttt taatgttgc aaaacaaaa gtagctttgt tttctttgt attttgtac
1980
tttgcagtat ttgtgtgtgt ggtttttttt ccttaatttg aaagggacag cactgtgtat
2040
gtttataaac taaatgaaga taagatatta tttgtataa acattcatct gagaacaatc
2100
aaagcagtag ccacatggtg ctggctcctt tgcagcacia acctggtcat ttgtatgact
2160
gtacaacagg aagacttgaa aaatcacgtg gattcatatt accaccgctc tcatttcagt
2220
gagtcttctg atcaaaaaag ctacgtcgtt atttctctct tctcttctc tttctagaa
2280
attgggtgtt tgtaccagaa tggaaatttg cttctcggtt atcctgtgct tcagatgatt
2340
ataactaac ccaaaactagc atgtgtttct gcagttttgt acacacctag gatcatattg
2400
cattcatcac tttaaacatc atgtttcagg ttttggtaa tacttgacaa ggggtgccag
2460
gacaggaaga cgtgtactgc tgagtgttcc ttcttgccct ttccagcagc ttgccagct
2520
cttgagtaca gtgggtggga ctaaaaatgt gggcatgtgg agaggggtat ttgccctggg
2580
tgatcctgtt tccctgtgct gtccccatgc tgtgttgagg gaggaagtgg ctctccttcc
2640
accaacaaag ctctctctct acctcttcc tcacatgtgc tgcgacctct ctccaggctc
2700
cccagccat tctctcttct ctctctgctt tttagctcta accacattaa gctaagacaa
2760
ggccagaggg tgcgattgaa tgagtattga gactgaggag aatgatagag agtgaagcag
2820
aaacaggagc gcagacctct cctgtagctt taatgcatac aaacatgtcc ctccgcacia
2880
ctaacctgcc ctgcctctcc atctcgacc aaggctgctg caaagcacag aggtccccg
2940
gactcggagg gggccagaga ctgagctctg gtcacctgtt cattcctcgg ttagctggaa
3000
ctttgccccg tttccagttt cttatagtc atgcttggga aacaagattt aaggagcctc
3060
tgttttgtaa gggctgtctg tgattgaacg tgaatgtgt agtgccattg ggaccacgaa
3120
gggaattctt gcacatgctc gtgctgtgtt gggcatggga ctggctggaa acgtctgtat
3180
gcagggagcc aggggtgagg cagagtgttg tgacagccga acttggaagta atgtccgtgt
3240
agaaaaagga ccatgttctt atccagccaa tactgggagt gctgtctcca caatttcagg
3300
gcactggaat gtttgatgtg gttttgtgtg tgtgtatgta tgtgtttaat attgaagtgg
3360
atcatgagat gtaaaagaaa caataatggc aatgacttat attcaaatct gtatttgggt
3420
ctttatcaat gtaatctgct gaggaccttt tgtctaagat tcagtagtgt ttaaggttc
3480
tgatatcgaa ttaatgaagt aaagtgtgtg atggtggtga aacaccgtag ggcattgtgt
3540

tcaaagagaa gcaggagggc aagggaagt taccttgatc ttagtttgta gcttatgact
 3600
 tatattaatga atggatgccc agccaagctc agagtaggcg cccaaagcat tgtggattat
 3660
 ttctctgttt tgtctttttt tttttttttt ttaagccatg acatcccaga agaggacagt
 3720
 gaattactcc taggtcggct cttatagagt ggccatagtg ttctgtcaaa acacttgctt
 3780
 ccattttcag agataaaaaa cattgattac aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa
 3840
 aaaaaaaaaa aaa
 3853

<210> 6306

<211> 474

<212> PRT

<213> Homo sapiens

<400> 6306

Met Arg Arg Val Val Arg Gln Ser Lys Phe Arg His Val Phe Gly Gln
 1 5 10 15
 Pro Val Lys Asn Asp Gln Cys Tyr Glu Asp Ile Arg Val Ser Arg Val
 20 25 30
 Thr Trp Asp Ser Thr Phe Cys Ala Val Asn Pro Lys Phe Leu Ala Val
 35 40 45
 Ile Val Glu Ala Ser Gly Gly Gly Ala Phe Leu Val Leu Pro Leu Ser
 50 55 60
 Lys Thr Gly Arg Ile Asp Lys Ala Tyr Pro Thr Val Cys Gly His Thr
 65 70 75 80
 Gly Pro Val Leu Asp Ile Asp Trp Cys Pro His Asn Asp Gln Val Ile
 85 90 95
 Ala Ser Gly Ser Glu Asp Cys Thr Val Met Val Trp Gln Ile Pro Glu
 100 105 110
 Asn Gly Leu Thr Ser Pro Leu Thr Glu Pro Val Val Leu Glu Gly
 115 120 125
 His Thr Lys Arg Val Gly Ile Ile Ala Trp His Pro Thr Ala Arg Asn
 130 135 140
 Val Leu Leu Ser Ala Gly Cys Asp Asn Val Val Leu Ile Trp Asn Val
 145 150 155 160
 Gly Thr Ala Glu Glu Leu Tyr Arg Leu Asp Ser Leu His Pro Asp Leu
 165 170 175
 Ile Tyr Asn Val Ser Trp Asn His Asn Gly Ser Leu Phe Cys Ser Ala
 180 185 190
 Cys Lys Asp Lys Ser Val Arg Ile Ile Asp Pro Arg Arg Gly Thr Leu
 195 200 205
 Val Ala Glu Arg Glu Lys Ala His Glu Gly Ala Arg Pro Met Arg Ala
 210 215 220
 Ile Phe Leu Ala Asp Gly Lys Val Phe Thr Thr Gly Phe Ser Arg Met
 225 230 235 240
 Ser Glu Arg Gln Leu Ala Leu Trp Asn Pro Lys Asn Met Gln Glu Pro
 245 250 255
 Ile Ala Leu His Glu Met Asp Thr Ser Asn Gly Val Leu Leu Pro Phe
 260 265 270
 Tyr Asp Pro Asp Thr Ser Ile Ile Tyr Leu Cys Gly Lys Gly Asp Ser

275	280	285
Ser Ile Arg Tyr Phe Glu Ile Thr Asp Glu Ser Pro Tyr Val His Tyr		
290	295	300
Leu Asn Thr Phe Ser Ser Lys Glu Pro Gln Arg Gly Met Gly Tyr Met		
305	310	315
Pro Lys Arg Gly Leu Asp Val Asn Lys Cys Glu Ile Ala Arg Phe Phe		
325	330	335
Lys Leu His Glu Arg Lys Cys Glu Pro Ile Ile Met Thr Val Pro Arg		
340	345	350
Lys Ser Asp Leu Phe Gln Asp Asp Leu Tyr Pro Asp Thr Ala Gly Pro		
355	360	365
Glu Ala Ala Leu Glu Ala Glu Glu Trp Phe Glu Gly Lys Asn Ala Asp		
370	375	380
Pro Ile Leu Ile Ser Leu Lys His Gly Tyr Ile Pro Gly Lys Asn Arg		
385	390	395
Asp Leu Lys Val Val Lys Lys Asn Ile Leu Asp Ser Lys Pro Thr Ala		
405	410	415
Asn Lys Lys Cys Asp Leu Ile Ser Ile Pro Lys Lys Thr Thr Asp Thr		
420	425	430
Ala Ser Val Gln Asn Glu Ala Lys Leu Asp Glu Ile Leu Lys Glu Ile		
435	440	445
Lys Ser Ile Lys Asp Thr Ile Cys Asn Gln Asp Glu Arg Ile Ser Lys		
450	455	460
Leu Glu Gln Gln Met Ala Lys Ile Ala Ala		
465	470	

<210> 6307

<211> 2119

<212> DNA

<213> Homo sapiens

<400> 6307

```

nnccctggcctt ccttctacct gtgcggccct caacgtctcc ttggtgcggg acccgcttca
60
ctttcggtct cgggagtcct cctccactgc tcagacctct ggacctgaca ggagacgcct
120
acttggtctct gacgcggcgc cccagcccggt ctgtgtcccc ggcgccccgg accacccctcc
180
ctgcggcgtt tgggtgcggt gtgggggtccc gaggattcgc gagatttggt gaaagacatt
240
caagattacg aagtttagat gacaaaaatg gatatccgag gtgctgtgga tgctgtgtgc
300
cccaccaata ttattgctgc caaggctgca gaagttcgtg caaacaaagt caactggcaa
360
tcctatcttc agggacagat gattttctgt gaagattgtg agtttattca gaggtttgaa
420
atgaaacgaa gccctgaaga gaagcaagag atgcttcaaa ctgaaggcag ccagtgtgct
480
aaaacattta taaatctgat gactcatatc tgcaaaagac agaccgttca gtatatacta
540
actatgggtg atgatatgct gcaggaaaaa catcagcgtg tttagcatttt ctttgactat
600
gcaagatgta gcaagaacac tgcgtggccc tactttctgc caatgttgaa tcgccaggat
660

```

cccttcaactg ttcataatggc agcaagaatt attgccaagt tagcagcttg gggaaaagaa
720
ctgatggaag gcagtgactt aaattactat ttcaattgga taaaaactca gctgagttca
780
cagaaactgc gtggtagcgg tgttgctgtt gaaacaggaa cagtcctctc aagtgatagt
840
tcgcagtatg tgcagtgctg ggccgggtgt ttgcagctga tgcctcgggt caatgagtac
900
cgcttgcctt ggggtggaagc agatggggta aattgcataa tgggagtggt gagtacaacag
960
tgttgctctc agctccagta tcaaatgatt ttttcaatat ggctcctggc attcagtcct
1020
caaatgtgtg aacacctgct gcgcataaat atcattccag ttctgtctga tatccttcag
1080
gagtcgtgca aagagaaagt aacaagaatc attcttgagc catttcgtaa ctttttagaa
1140
aaatcaactg aaagagaaac tcgccaagaa tatgcctgtg ctatgattca gtgcaaagtt
1200
ctgaaacagt tggagaactt ggaacagcag aagtacgatg atgaagatat cagcgaagat
1260
atcaaatttc ttttggaaaa acttggagag agtgtccagg accttagttc atttgatgaa
1320
tacagttcag aacttaaatc tgggaaggtg gaatggagtc ctgtgcacaa atctgagaaa
1380
ttttggagag agaatgctgt gaggttaaat gagaagaatt atgaactctt gaaaatcttg
1440
acaaaacttt tggaaagtgtc agatgatccc caagtccttag ctgttgctgc tcacgatgtt
1500
ggagaatatg tgcggcatta tccacgaggc aaacgggtca tcgagcagct cgggtgggaag
1560
cagctgggtc tgaaccacat gcacatgaa gaccagcagg tcgcctataa tgctctgtgt
1620
gcgctgcaga agctcatggt gcacaactgg gaataccttg gcaagcagct ccagtcogag
1680
cagccccaga ccgctgcgcg ccgaagctaa gcctgcctct ggcttcccc tcgcctcaa
1740
tgagaacca gtatggggag cactgtgttt agagttaaga gtgaacactg tttgatttta
1800
cttggaaatt cctctgttat atagcttttc ccaatgctaa ttccaaaca acaacaacaa
1860
aataacatgt ttgctgttta agttgtataa aagtaggtga ttctgtattt aaagaaaata
1920
ttactgttac atatactgct tgcaatttct gtattttatt ttctctggaa ataatatag
1980
ttattaaagg attctcactc caaacatggc ctctctcttt acttggactt tgaacaaaag
2040
tcaactgttg tctcttttca aaccaaattg ggagaattgt tgcaaagtag tgaatggcaa
2100
ataaatgttt taaaatcta
2119

<210> 6308

<211> 483

<212> PRT

<213> Homo sapiens

<400> 6308

```

Met Thr Lys Met Asp Ile Arg Gly Ala Val Asp Ala Ala Val Pro Thr
 1           5           10           15
Asn Ile Ile Ala Ala Lys Ala Ala Glu Val Arg Ala Asn Lys Val Asn
 20           25           30
Trp Gln Ser Tyr Leu Gln Gly Gln Met Ile Ser Ala Glu Asp Cys Glu
 35           40           45
Phe Ile Gln Arg Phe Glu Met Lys Arg Ser Pro Glu Glu Lys Gln Glu
 50           55           60
Met Leu Gln Thr Glu Gly Ser Gln Cys Ala Lys Thr Phe Ile Asn Leu
 65           70           75           80
Met Thr His Ile Cys Lys Glu Gln Thr Val Gln Tyr Ile Leu Thr Met
 85           90           95
Val Asp Asp Met Leu Gln Glu Asn His Gln Arg Val Ser Ile Phe Phe
100          105          110
Asp Tyr Ala Arg Cys Ser Lys Asn Thr Ala Trp Pro Tyr Phe Leu Pro
115          120          125
Met Leu Asn Arg Gln Asp Pro Phe Thr Val His Met Ala Ala Arg Ile
130          135          140
Ile Ala Lys Leu Ala Ala Trp Gly Lys Glu Leu Met Glu Gly Ser Asp
145          150          155          160
Leu Asn Tyr Tyr Phe Asn Trp Ile Lys Thr Gln Leu Ser Ser Gln Lys
165          170          175
Leu Arg Gly Ser Gly Val Ala Val Glu Thr Gly Thr Val Ser Ser Ser
180          185          190
Asp Ser Ser Gln Tyr Val Gln Cys Val Ala Gly Cys Leu Gln Leu Met
195          200          205
Leu Arg Val Asn Glu Tyr Arg Phe Ala Trp Val Glu Ala Asp Gly Val
210          215          220
Asn Cys Ile Met Gly Val Leu Ser Asn Lys Cys Gly Phe Gln Leu Gln
225          230          235          240
Tyr Gln Met Ile Phe Ser Ile Trp Leu Leu Ala Phe Ser Pro Gln Met
245          250          255
Cys Glu His Leu Arg Arg Tyr Asn Ile Ile Pro Val Leu Ser Asp Ile
260          265          270
Leu Gln Glu Ser Val Lys Glu Lys Val Thr Arg Ile Ile Leu Ala Ala
275          280          285
Phe Arg Asn Phe Leu Glu Lys Ser Thr Glu Arg Glu Thr Arg Gln Glu
290          295          300
Tyr Ala Leu Ala Met Ile Gln Cys Lys Val Leu Lys Gln Leu Glu Asn
305          310          315          320
Leu Glu Gln Gln Lys Tyr Asp Asp Glu Asp Ile Ser Glu Asp Ile Lys
325          330          335
Phe Leu Leu Glu Lys Leu Gly Glu Ser Val Gln Asp Leu Ser Ser Phe
340          345          350
Asp Glu Tyr Ser Ser Glu Leu Lys Ser Gly Arg Leu Glu Trp Ser Pro
355          360          365
Val His Lys Ser Glu Lys Phe Trp Arg Glu Asn Ala Val Arg Leu Asn
370          375          380
Glu Lys Asn Tyr Glu Leu Leu Lys Ile Leu Thr Lys Leu Leu Glu Val
385          390          395          400
Ser Asp Asp Pro Gln Val Leu Ala Val Ala Ala His Asp Val Gly Glu

```



```

                405                410                415
Tyr Val Arg His Tyr Pro Arg Gly Lys Arg Val Ile Glu Gln Leu Gly
                420                425                430
Gly Lys Gln Leu Val Met Asn His Met His His Glu Asp Gln Gln Val
                435                440                445
Arg Tyr Asn Ala Leu Leu Ala Val Gln Lys Leu Met Val His Asn Trp
                450                455                460
Glu Tyr Leu Gly Lys Gln Leu Gln Ser Glu Gln Pro Gln Thr Ala Ala
465                470                475                480
Ala Arg Ser

```

<210> 6309

<211> 564

<212> DNA

<213> Homo sapiens

<400> 6309

```

cggccgcagc gttcacggtg acatcgcaaa aggcgagggg gagacgcgcc cgcgggagccc
60
cttcccggtg tgctccccacg tggcgctcgac cgggaagaag gggccggtag ggagcccttc
120
ccaggcgect cccacggggg tccccgcgac ccgcgacacc accaacagtc gccccaaccg
180
ccgcgtggaa cagacgaccc gggctctcaa gaggcggcgc gggcgggacg cagcccttgg
240
tccatctcgg gcgcgcctcg atgcactcct actgcgcccg ggtcctcccg cctgtctctc
300
ctttgggggg ctcagggttc tcacggggga cgcctgcacg taagccagga cggcgtttctg
360
caggaagctc gccctctggg cctcctcgtc ccggaatgcg gcgatctccg cctcccgagg
420
ccgcagcttc tcccgagag acgcgttctc gctctccctg tccagcagcg cgatctgagc
480
tcactggaac ctccacctcc caggttcgag tgattctcct gcctcagcct cctgagtagc
540
tggtattaca ggggtgccacc acta
564

```

<210> 6310

<211> 83

<212> PRT

<213> Homo sapiens

<400> 6310

```

Cys Thr Pro Thr Ala Pro Gly Ser Ser Arg Pro Val Ser Leu Trp Gly
  1                5                10                15
Ala Gln Gly Pro His Gly Gly Arg Leu His Val Ser Gln Asp Gly Val
                20                25                30
Leu Gln Glu Ala Arg Pro Leu Gly Leu Leu Val Pro Asp Ala Gly Asp
                35                40                45
Leu Arg Leu Pro Glu Pro Gln Leu Leu Pro Glu Arg Arg Val Leu Ala
                50                55                60
Leu Pro Val Gln Gln Arg Asp Leu Ser Ser Leu Glu Pro Pro Pro Pro

```

65
Arg Phe Glu

70

75

80

<210> 6311
<211> 1548
<212> DNA
<213> Homo sapiens

<400> 6311
nggtttggca agagaccaac ctcagctcag actttccatc tgagcacagc cgtttggcta
60
tgagccttttt actgaatttt atagcaactc tgatttcttc ctttaaatga ttggaggcctt
120
tttaaagatc ttatggggct caaataactaa cttcataaat gcccttttga ataacagcag
180
caataaatct ctcagctgat atttcaattt actaaggaag cacaaattaa aacattcctg
240
ctacacagtc atgggctggc acatgtctgg ttggatgaat acaaggagca gtatttttcc
300
ttaagacctg acctgaagac gaaaagctat ggcaatatca gtgagcgtgt ggaactgaga
360
aagaagttgg gctgtaaatc attttaaagg tatttggata atgtataccc agagatgcag
420
atatctgggt cccacgcca accccaacaa cccatttttg tcaatagagg gccaaaacga
480
cccaaagtcc ttcaactgg aaggctctat caccctccaga ccaacaaatg cctgggtggc
540
cagggcgccc caagtcagaa gggaggtctc gtggtgctta aggcctgtga ctacagtgc
600
ccaaatcaga tctggatcta taatgaagag catgaattgg ttttaaatag tctcctttgt
660
ctagatatgt cagagactcg ctcacagac cgcacacggc tcatgaaatg ccacgggtca
720
ggaggatccc agcagtgagc ctttgggaaa aacaatcggc taccagggt gtgcgttgga
780
cagtgctcga gagcagtgga tccccgggt cagaagggt cgtgcgcat ggcgatctgc
840
gatggctcct cttcacagca gtggcatttg gaagggttaa gtggatgctg tggcggggaa
900
gttgcctcat caggcgttgc ctcoggtgtg gaggtttggg ctttaggaaa gcctgggttg
960
ggtggagcag aaccatcttg gagaagatga cagttccctg tctccccga gatgcctggg
1020
tgtgttagca gaggtgacac gtgtctgaca gagacgggag ctctgagtgt ccacgggtga
1080
agaagttagt gtccacgggt gaagaagtga gtatgtttca cctggacatt aagtgatgt
1140
ttgagctgct gtttaaggaat ttcttgctta tagaggcaaa ccacagtatc attttaactc
1200
tagaattggg cttgtacaga aggataaaac ccaggaaaaa ggatatttct attcagattt
1260
atttatgcct ctttttaac ccctttaatg atgcagtggt ttttatctga tcaggaactt
1320

gtcatgattt cttttcttag acttcatagg agatagtgct ttaaaaaaa aaaaacttct
 1380
 attatttggt tagtatgttg taagtagatc attttaaaaa actgaatcta tattatgttt
 1440
 aaacttcagaa ggcacatctt ataagacagt atggcagtta attataaaat tattttgatg
 1500
 aattatgata caatctacat aataaagaat ccttttgatt aaaaaaaa
 1548

<210> 6312
 <211> 234
 <212> PRT
 <213> Homo sapiens

<400> 6312
 Gln Gln Gln Ile Ile Ser Gln Leu Ile Phe Gln Phe Thr Lys Glu Ala
 1 5 10 15
 Gln Ile Lys Thr Phe Leu Leu His Ser His Gly Leu Ala His Val Trp
 20 25 30
 Leu Asp Glu Tyr Lys Glu Gln Tyr Phe Ser Leu Arg Pro Asp Leu Lys
 35 40 45
 Thr Lys Ser Tyr Gly Asn Ile Ser Glu Arg Val Glu Leu Arg Lys Lys
 50 55 60
 Leu Gly Cys Lys Ser Phe Lys Trp Tyr Leu Asp Asn Val Tyr Pro Glu
 65 70 75 80
 Met Gln Ile Ser Gly Ser His Ala Lys Pro Gln Gln Pro Ile Phe Val
 85 90 95
 Asn Arg Gly Pro Lys Arg Pro Lys Val Leu Gln Arg Gly Arg Leu Tyr
 100 105 110
 His Leu Gln Thr Asn Lys Cys Leu Val Ala Gln Gly Arg Pro Ser Gln
 115 120 125
 Lys Gly Gly Leu Val Val Leu Lys Ala Cys Asp Tyr Ser Asp Pro Asn
 130 135 140
 Gln Ile Trp Ile Tyr Asn Glu Glu His Glu Leu Val Leu Asn Ser Leu
 145 150 155 160
 Leu Cys Leu Asp Met Ser Glu Thr Arg Ser Ser Asp Pro Pro Arg Leu
 165 170 175
 Met Lys Cys His Gly Ser Gly Gly Ser Gln Gln Trp Thr Phe Gly Lys
 180 185 190
 Asn Asn Arg Leu Tyr Gln Val Ser Val Gly Gln Cys Leu Arg Ala Val
 195 200 205
 Asp Pro Leu Gly Gln Lys Gly Ser Val Ala Met Ala Ile Cys Asp Gly
 210 215 220
 Ser Ser Ser Gln Gln Trp His Leu Glu Gly
 225 230

<210> 6313
 <211> 725
 <212> DNA
 <213> Homo sapiens

<400> 6313
 tttttttttt tttttttttt tttttttttg gtaattaaca taatttatta cgcaaaaaat
 60

gagaaaaatat acagcaggag ggatgaggag tacacatagg aaatttctgt gattttcttc
 120
 attttgatcg tattgctttc ttgtcttcag gagggagat ttcgacttca aaagtaacaa
 180
 aatatttaag aagagaattc acatctttct gttctagctg gtattcttgc attattttct
 240
 cagcagtcga ggtttctggg aaaagcttat gattattgag aagtgtcaat gcttctacaa
 300
 tggaaatatt gcctttggga atgctcttaa tatttatcat atcaaatga tggcttttgc
 360
 gcaatctgaa ttccttcggc tcttgacatg tttcagcagc ttttacctgc aaggaagaca
 420
 caggatcttt ggaatcaaca tacacatctt ttagaaacga cagcagcttt tcatctttac
 480
 gagcaatctc tcctttaact tctggataga gactaatctg ctctcgagg aggetgttgg
 540
 tagaggggtg tctgggagcg acagagggtc tcatcttgcg gatttcccggt tccgctcggt
 600
 tctctaggtt gaaattctct ataccgcgaa tcactagtct tcccatctcc tcataacatt
 660
 atgcgctcag gttcaggccg cacgtgggaa caccggcgca ggacaactct cgggacaccc
 720
 ggagc
 725

<210> 6314

<211> 175

<212> PRT

<213> Homo sapiens

<400> 6314

Met	Gly	Ala	Leu	Val	Ile	Arg	Gly	Ile	Arg	Asn	Phe	Asn	Leu	Glu	Asn
1				5				10					15		
Arg	Ala	Glu	Arg	Glu	Ile	Ser	Lys	Met	Lys	Pro	Ser	Val	Ala	Pro	Arg
			20					25				30			
His	Pro	Ser	Thr	Asn	Ser	Leu	Leu	Arg	Glu	Gln	Ile	Ser	Leu	Tyr	Pro
			35				40				45				
Glu	Val	Lys	Gly	Glu	Ile	Ala	Arg	Lys	Asp	Glu	Lys	Leu	Leu	Ser	Phe
			50				55				60				
Leu	Lys	Asp	Val	Tyr	Val	Asp	Ser	Lys	Asp	Pro	Val	Ser	Ser	Leu	Gln
					70					75				80	
Val	Lys	Ala	Ala	Glu	Thr	Cys	Gln	Glu	Pro	Lys	Glu	Phe	Arg	Leu	Pro
					85					90				95	
Lys	Asp	His	His	Phe	Asp	Met	Ile	Asn	Ile	Lys	Ser	Ile	Pro	Lys	Gly
					100				105				110		
Lys	Ile	Ser	Ile	Val	Glu	Ala	Leu	Thr	Leu	Leu	Asn	Asn	His	Lys	Leu
					115			120				125			
Phe	Pro	Glu	Thr	Trp	Thr	Ala	Glu	Lys	Ile	Met	Gln	Glu	Tyr	Gln	Leu
						135					140				
Glu	Gln	Lys	Asp	Val	Asn	Ser	Leu	Leu	Lys	Tyr	Phe	Val	Thr	Phe	Glu
					150					155				160	
Val	Glu	Ile	Phe	Pro	Pro	Glu	Asp	Lys	Lys	Ala	Ile	Arg	Ser	Lys	
					165				170					175	

<210> 6315
 <211> 378
 <212> DNA
 <213> Homo sapiens

<400> 6315
 caagaatcca ttgaagccag caagactgca cttgtcctg aaagatttgt acccctaagt
 60
 gctcaaaaca gaaaacttgt ggaggccata aaacaaggtc acattcctga gctccaggag
 120
 tatgtaaat ataaatatgc aatggatgaa gctgatgaaa aaggatggtt tccattgcatt
 180
 gaagctgttg ttcaacccat tcaacaataa cttgagattg ttctggatgc atcctataag
 240
 acactctggg aattcaagac ctgtgatgga gaaacaccct tgactttggc agtcaaaagt
 300
 ggtctgtgtg aaaatgtaag aactttatta gaaaaggagg tgtggcccaa cacaaaaaat
 360
 gataaaggag agaccccc
 378

<210> 6316
 <211> 126
 <212> PRT
 <213> Homo sapiens

<400> 6316
 Gln Glu Ser Ile Glu Ala Ser Lys Thr Ala Leu Cys Pro Glu Arg Phe
 1 5 10 15
 Val Pro Leu Ser Ala Gln Asn Arg Lys Leu Val Glu Ala Ile Lys Gln
 20 25 30
 Gly His Ile Pro Glu Leu Gln Glu Tyr Val Lys Tyr Lys Tyr Ala Met
 35 40 45
 Asp Glu Ala Asp Glu Lys Gly Trp Phe Pro Leu His Glu Ala Val Val
 50 55 60
 Gln Pro Ile Gln Gln Ile Leu Glu Ile Val Leu Asp Ala Ser Tyr Lys
 65 70 75 80
 Thr Leu Trp Glu Phe Lys Thr Cys Asp Gly Glu Thr Pro Leu Thr Leu
 85 90 95
 Ala Val Lys Ala Gly Leu Val Glu Asn Val Arg Thr Leu Leu Glu Lys
 100 105 110
 Gly Val Trp Pro Asn Thr Lys Asn Asp Lys Gly Glu Thr Pro
 115 120 125

<210> 6317
 <211> 1201
 <212> DNA
 <213> Homo sapiens

<400> 6317
 nngggcccag aactacaact ctgcagcgaa agatagagat gcccttgaaa atgtgtcaca
 60
 ttcttaagat gtcttgcgga agtagcaaga gcggagggtg actgtgtgag caggagcgag
 120

agggcgccag ctctcgcg ggagggttctt actgcgcgcc ccacctgtg caagaatgtc
 180
 aggccttagg gcagctgcc taggccccag gggcatcagg actctgcctc tgaaccagag
 240
 ctgcttttcc gactaaactc aatctggaga gatggttaagt tatctaaccg gctcttcttt
 300
 tggcgagact gctctttctc cttaaatcaga gccccccatg ccctttgcag ctacagagtgc
 360
 tcttcctcag cgccaggcac cctgtgatcc actttcttcg tattcttttc tttggctctg
 420
 ggtgcagttc ctaggcgagt ccataaatta cctgatttct tctcccgagt atcggcgtag
 480
 aggcctttac tatcctgcct gggaaacacct agcctactat gcacatcaga agagggtctt
 540
 ctccgaacga cggggttact actaaaagcc tttccggag aatgtggtct ttttctaac
 600
 cgctggcgta tatctgattt agtactgctg actggtggcc gtggacggga gtgctgacgt
 660
 ttctcatcta atagatgtcg gacatctgca aatttctcag gtggttaatt gttaccaatt
 720
 cggtttttga tattgcttga agatacacta tctgccctca tggagtctct aatatttttc
 780
 aactgagatt ccactctgtc agcatacata gtcattttca tgcttttctt tggtaaggc
 840
 gtggaaatca ttttcagttc tagatcatag tccatttcat ctgagtctga gctgctggca
 900
 ctgagatgct tagacgcgct ccgctcccg ggctgcttga gagccgggag ctctctgttg
 960
 tactctacca ccactctgtc atctgcatcc atgtctgtgt ctctctcttc ctctctctct
 1020
 tctctctctc cctcctcttc ctctcttcca atgggttctc cgggaacatt cactagccca
 1080
 gaatgtcgat gtttatacga cgtaagcca acgtcatccc caatcagggc tctcttcttg
 1140
 atcacgtccc gctgaatagc acgggaatga tatcttcgct tccatgaatt gctaagaatt
 1200
 c
 1201

<210> 6318

<211> 94

<212> PRT

<213> Homo sapiens

<400> 6318

Ser	Ile	Ser	Ser	Ser	Glu	Leu	Leu	Ala	Leu	Asp	Arg	Leu	Asp	Ala
1				5			10			15				
Leu	Arg	Ser	Arg	Gly	Cys	Leu	Arg	Ala	Gly	Ser	Ser	Ser	Trp	Ser
			20				25			30				
Thr	Thr	Thr	Leu	Ser	Ser	Ala	Ser	Met	Ser	Trp	Ser	Ser	Ser	Ser
			35			40				45				
Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Met	Gly	Ser
			50			55				60				
Gly	Thr	Phe	Thr	Ser	Pro	Glu	Cys	Arg	Cys	Leu	Tyr	Asp	Val	Pro

```

65          70          75          80
Thr Ser Ser Pro Ile Arg Ala Leu Phe Leu Ile Thr Ser Arg
      85          90

<210> 6319
<211> 345
<212> DNA
<213> Homo sapiens

<400> 6319
gcgccgccgc tglgggccgc ctccgcagcc ggcacctgg acgtggtgcg gagcctgctg
60
cgccgcgggg cctcggtgaa ccgcaccacg cgcaccaact ccacgcctct ccgcgccgc
120
tgcttcgacg gccacctgga ggtggtgctg tacctggtcg gcgagcacca ggccgacctg
180
gaggtggcca accggcacgg ccacacgtgc ctcatgatct cgtgctacaa gggccacctg
240
gagatcgccc gctacctgct ggagcagggc gcccaggtga accggcgag cgccaagggc
300
aacacggccc tgcatgactg cgccgagtcc ggcagcctgg agatc
345

<210> 6320
<211> 115
<212> PRT
<213> Homo sapiens

<400> 6320
Ala Pro Pro Leu Trp Ala Ala Ser Ala Ala Gly His Leu Asp Val Val
1          5          10          15
Arg Ser Leu Leu Arg Arg Gly Ala Ser Val Asn Arg Thr Thr Arg Thr
20          25          30
Asn Ser Thr Pro Leu Arg Ala Ala Cys Phe Asp Gly His Leu Glu Val
35          40          45
Val Arg Tyr Leu Val Gly Glu His Gln Ala Asp Leu Glu Val Ala Asn
50          55          60
Arg His Gly His Thr Cys Leu Met Ile Ser Cys Tyr Lys Gly His Arg
65          70          75          80
Glu Ile Ala Arg Tyr Leu Leu Glu Gln Gly Ala Gln Val Asn Arg Arg
85          90          95
Ser Ala Lys Gly Asn Thr Ala Leu His Asp Cys Ala Glu Ser Gly Ser
100          105          110
Leu Glu Ile
115

<210> 6321
<211> 1442
<212> DNA
<213> Homo sapiens

<400> 6321
aagctttgcc agagtgggtt ggctacagtc agcttttcta caggaagtgg cattttccac
60

```

ttgtgaaacg gtaggtcatt ccctgacctc tgcagaactc agccctgtgg agctccacca
120
cctggcccag gccctgcccac catgcaacct cccgggggtgg ccctcaatga cctgcacgtc
180
ccttcactct aaggaacctc gagttacagt ggccttaagg acatgtgtat ttagaagcct
240
ttgtgtacaa actagctctg tgcgctctca gtttaccgtc ctacaccttt attgttagct
300
gttctttaag tttctcacac attattggca attatgtaaa aatcaagaac ctctataaaa
360
caacctggct ttccaggtgg aattccgcat acagccaaaa ctggattcca gtgtggccag
420
acaacgcccac tgtcccaatt taagagtcgc tgtcctcacc accatccgga tgggcctctc
480
tgtcagtgtg tgatgtggcc agggcagtggt ccacctgaac ttctctctca tcggactgaa
540
caacggggga ctccccacc tcactgatgt cccgggtggc cgagtcggtg caggtggagg
600
aagaagaagg tggcttggct cttaattctg agggatttgg aacctggagg gtaattctcat
660
tctgacaggt actggattca ggccttaagg cgggggacag cacagtgttc tctctctctc
720
cagagttcag gaagacgtcc agggcctcct ggtcgatat gtccatcagg tccatctgct
780
ccagcatgtc cagcttccact tccatggatg acatgtgcc tatgggctct cggcgctctg
840
caatctgcag gtaccagtg gacaggtact gctgctccat gtctctctgg aaggcttctc
900
caaaaaactt ctgcctctcc ttacagttca tttgctgggt gtgctccatt tccaggacct
960
tctgggctgt ctctgcattc agttcagagg gatccctctg actattttctg gtgagtcctg
1020
gagatgacat ggtatgtgaga cctgaatgag tgaacagaag ctcatgtctg gtcaagtga
1080
gctccagtt accaggcagc tgccctcacg tgcattctct gggatgtaga acaaggaag
1140
tgaggctgaa gccagaagca ggtttttcca aagaaattgt agtaagccta ttagtttttt
1200
gctgatggct taagcagata tacattggaa tctactgcct ctataaaagc aaaatgcaag
1260
ctctcagggg ctctagtgtg caaagatgta tgcaccggtc tgggaccata ccaaatgcag
1320
ctcaaaatgg aggggagggg aggctgaaaa taactaaatc caacagaatt tgtcatctag
1380
gtacaaagat gcttttagtaa cacagcaaaa gagagatgaa atcttctgtg ttgaaagtag
1440
ta
1442

<210> 6322

<211> 196

<212> PRT

<213> Homo sapiens

<400> 6322

```

Met Ser Ser Pro Gly Leu Thr Glu Asn Ser Gln Arg Asp Pro Ser Glu
 1           5           10          15
Leu Asp Ala Glu His Ala Gln Lys Val Leu Glu Met Glu His Thr Gln
 20          25          30
Gln Met Lys Leu Lys Glu Arg Gln Lys Phe Phe Glu Glu Ala Phe Gln
 35          40          45
Gln Asp Met Glu Gln Gln Tyr Leu Ser Thr Gly Tyr Leu Gln Ile Ala
 50          55          60
Glu Arg Arg Glu Pro Ile Gly Ser Met Ser Ser Met Glu Val Asn Val
 65          70          75          80
Asp Met Leu Glu Gln Met Asp Leu Met Asp Ile Ser Asp Gln Glu Ala
 85          90          95
Leu Asp Val Phe Leu Asn Ser Gly Gly Glu Glu Asn Thr Val Leu Ser
100          105          110
Pro Ala Leu Gly Pro Glu Ser Ser Thr Cys Gln Asn Glu Ile Thr Leu
115          120          125
Gln Val Pro Asn Pro Ser Glu Leu Arg Ala Lys Pro Pro Ser Ser Ser
130          135          140
Ser Thr Cys Thr Asp Ser Ala Thr Arg Asp Ile Ser Glu Gly Gly Glu
145          150          155          160
Ser Pro Val Val Gln Ser Asp Glu Glu Glu Val Gln Val Asp Thr Ala
165          170          175
Leu Ala Thr Ser His Thr Asp Arg Glu Ala Thr Pro Asp Gly Gly Glu
180          185          190
Asp Ser Asp Ser
195

```

What is claimed is:

1. An isolated nucleic acid molecule encoding a polypeptide comprising an amino acid sequence that is at least 85% identical to a polypeptide including an amino acid sequence selected from the group consisting of SEQ ID NO:2*n*, wherein *n* is any integer 1-3161, or the complement thereof.
2. The isolated nucleic acid molecule of claim 1, said molecule hybridizing under stringent conditions to a nucleic acid sequence complementary to a nucleic acid molecule comprising the sequence of nucleotides selected from the group consisting of SEQ ID NO:2*n*, wherein *n* is any integer 1-3161, or the complement thereof.
3. The isolated nucleic acid molecule of claim 1, said molecule encoding a polypeptide comprising the amino acid sequence selected from the group consisting of SEQ ID NO: 2*n*, wherein *n* is any integer 1-3161, or an amino acid sequence comprising one or more conservative substitutions in the amino acid sequence selected from the group consisting of SEQ ID NO: 2*n*.
4. The isolated nucleic acid molecule of claim 1, wherein said molecule encodes a polypeptide comprising the amino acid sequence selected from the group consisting of SEQ ID NO: 2*n*, wherein *n* is any integer 1-3161.
5. The isolated nucleic acid molecule of claim 1, wherein said molecule comprises the sequence of nucleotides selected from the group consisting of SEQ ID NO:2*n*-1, wherein *n* is any integer 1-3161, or the complement thereof.
6. An oligonucleotide less than 100 nucleotides in length and comprising at least 5 contiguous nucleotides selected from the group consisting of SEQ ID NO:2*n*-1, wherein *n* is any integer 1-3161, or the complement thereof.
7. A vector comprising the nucleic acid molecule of claim 1.

8. The vector of claim 7, wherein said vector is an expression vector.
9. A host cell comprising the isolated nucleic acid molecule of claim 1.
10. A substantially purified polypeptide comprising an amino acid sequence at least 80% identical to a polypeptide comprising the amino acid sequence selected from the group consisting of SEQ ID NO: 2*n*, wherein *n* is any integer 1-3161.
11. The polypeptide of claim 10, wherein said polypeptide comprises the amino acid sequence selected from the group consisting of SEQ ID NO: 2*n*, wherein *n* is any integer 1-3161.
12. An antibody that selectively binds to the polypeptide of claim 10.
13. A pharmaceutical composition comprising a therapeutically or prophylactically effective amount of a therapeutic selected from the group consisting of:
 - a) the nucleic acid of claim 1;
 - b) the polypeptide of claim 10; and
 - c) the antibody of claim 12;and a pharmaceutically acceptable carrier.
14. A kit comprising in one or more containers, a therapeutically or prophylactically effective amount of the pharmaceutical composition of claim 13.
15. A method of producing the polypeptide of claim 10, said method comprising culturing the host cell of claim 9 under conditions in which the nucleic acid molecule is expressed.
16. A method of detecting the presence of the polypeptide of claim 10 in a sample, comprising contacting the sample with a compound that selectively binds to said polypeptide under conditions allowing the formation of a complex between said polypeptide and said

compound, and detecting said complex, if present, thereby identifying said polypeptide in said sample.

17. A method of detecting the presence of a nucleic acid molecule of claim 1 in a sample, the method comprising contacting the sample with a nucleic acid probe or primer that selectively binds to the nucleic acid molecule and determining whether the nucleic acid probe or primer bound to the nucleic acid molecule of claim 1 is present in the sample.

18. A method for modulating the activity of the polypeptide of claim 10, the method comprising contacting a cell sample comprising the polypeptide of claim 10 with a compound that binds to said polypeptide in an amount sufficient to modulate the activity of the polypeptide.

19. The use of a therapeutic in the manufacture of a medicament for treating a syndrome associated with a ORFX-associated disorder, wherein said therapeutic is selected from the group consisting of:

- a) the nucleic acid of claim 1;
- b) the polypeptide of claim 10; and
- c) the antibody of claim 12.

20. A method for screening for a modulator of activity or of latency or predisposition to an ORFX-associated disorder, said method comprising:

- a) contacting a test compound with the polypeptide of claim 10; and
- b) determining if said test compound binds to said polypeptide,

wherein binding of said test compound to said polypeptide indicates the test compound is a modulator of activity or of latency or predisposition to an ORFX-associated disorder.

21. A method for screening for a modulator of activity or of latency or predisposition to an ORFX-associated disorder, said method comprising:

- a) administering a test compound to a test subject at an increased risk ORFX-associated disorder, wherein said test subject recombinantly expresses a polypeptide encoded by the nucleotide of claim 1;

- b) measuring expression the activity of said protein in said test subject;
- c) measuring the activity of said protein in a control subject that recombinantly expresses said protein and is not at increased risk for an ORFX-associated disorder; and
- d) comparing expression of said protein in said test subject and said control subject, wherein a change in the activity of said protein in said test subject relative to said control subject indicates the test compound is a modulator or of latency of predisposition to an ORFX-associated disorder.

22. The method of claim 20, wherein said test animal is a recombinant test animal that expresses a test protein transgene or expresses said transgene under the control of a promoter at an increased level relative to a wild-type test animal, and wherein said promoter is not the native gene promoter of said transgene.

23. A method for determining the presence of or predisposition to a disease associated with altered levels of a polypeptide of claim 11 in a subject, the method comprising:

- a) measuring the amount of the polypeptide in a sample from said subject; and
- b) comparing the amount of said polypeptide in step (a) to the amount of the polypeptide present in a control sample,

wherein an alteration in the level of the polypeptide in step (a) as compared to the control sample indicates the presence of or predisposition to a disease in said subject.

24. The method of claim 23, wherein said subject is a human.

25. A method for determining the presence of or predisposition to a disease associated with altered levels the nucleic acid molecule of claim 1 in a subject, the method comprising:

- a) measuring the amount of the nucleic acid in a sample from the mammalian subject; and
- b) comparing the amount of said nucleic acid in step (a) to the amount of the nucleic acid present in a control sample,

wherein an alteration in the level of the nucleic acid in step (a) as compared to the control sample indicates the presence of or predisposition to said disease in said subject.

26. The method of claim 25, wherein said subject is a human.

27. A method of treating or preventing a pathological condition associated with an ORFX-associated disorder in a subject, the method comprising administering to said subject polypeptide of claim 10 in an amount sufficient to alleviate or prevent said pathological condition.

28. The method of claim 27, wherein said subject is a human.

29. A method of treating or preventing a pathological condition associated with an ORFX-associated disorder in a subject, the method comprising administering to said subject a nucleic acid molecule of claim 1 in an amount sufficient to alleviate or prevent said pathological condition.

30. The method of claim 29, wherein said subject is a human.

31. A method of treating or preventing a pathological condition associated with an ORFX-associated disorder in a subject, the method comprising administering to said subject an antibody of claim 12 in an amount sufficient to alleviate or prevent said pathological condition.

32. The method of claim 31, wherein said subject is a human.